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THE ELEMENTS OF LOGICK.

INTRODUCTION.

I. OF all the human Sciences, that concerning Man, is certainly the moſt worthy of Man, and the moſt neceſſary Part of Knowledge. We find ourſelves in this World ſurrounded with a Variety of Objects; we have Powers and Faculties fitted to deal with them, and are happy or miſerable in proportion as we know how to frame a right Judgment of Things, and ſhape our Actions agreeably to the Circumſtances in which we are placed. No Study therefore is more important than that which introduces us to the Knowledge of ourſelves. Hereby we become acquainted with the Extent and Capacity of the human Mind, and learning to diſtinguiſh what Objects it is ſuited to, and in what manner it muſt proceed, in order to compaſs its Ends, we arrive by degrees at that Juſtneſs and Truth of Underſtanding, which is the great Perfection of a rational Being.

Importance of the Knowledge of ourſelves.

II. IF we look attentively into Things, and ſurvey them in their full Extent, we ſee them riſing one above another in various Degrees of Eminence. Among the inanimate Parts of Matter ſome exhibit nothing worthy our Attention, their Parts ſeem as it were jumbled together by mere Chance;

Different Gradations of Perfection in Things.

nor can we diſcover any Beauty, Order, or Regularity in their Compoſition. In others we diſcern the fineſt Arrangement, and a certain Elegance of Contexture, that makes us affix to them a Notion of Worth and Excellence. Thus Metals, and precious Stones, are conceived as far ſurpaſſing thoſe unformed Maſſes of Earth, that lie every where expoſed to view. If we trace Nature onward, and purſue her through the vegetable and animal Kingdoms, we find her ſtill multiplying her Perfections, and riſing by a juſt Gradation, from mere Mechaniſm to Perception, and from Perception in all its various Degrees, to Reaſon and Underſtanding.

Uſefulneſs of Culture, and Importance of the Study of Logick.

III. But though Reaſon be the Boundary, by which Man is diſtinguiſhed from the other Creatures that ſurround him, yet we are far from finding it the ſame in all. Nor is this Inequality to be wholly aſcribed to the original Make of Men's Minds, or the Difference of their natural Endowments. For if we look abroad into the ſeveral Nations of the World, ſome are over-run with Ignorance and Barbarity, others flouriſh in Learning and the Sciences; and what is yet more remarkable, the ſame People have, in different Ages, been diſtinguiſhed by theſe very oppoſite Characters. It is therefore by Culture, and a due Application of the Powers of our Minds, that we increaſe their Capacity, and carry human Reaſon to Perfection. Where this Method is followed, Knowledge and Strength of Underſtanding never fail to enſue; where it is neglected, we remain ignorant of our own Worth: and thoſe latent Qualities of the Soul, by which ſhe is fitted to ſurvey this vaſt Fabrick of the World, to ſcan the Heavens, and ſearch into the Cauſes of Things, lie buried in Darkneſs and Obſcurity. No Part of Knowledge therefore yields a fairer Proſpect of Improvement, than that which takes account of the Underſtanding, examines its Powers and Faculties, and ſhews the Ways by which it comes to attain its various Notions of Things. This is properly the Deſign of *Logick*, which may be juſtly ſtiled the Hiſtory of the human Mind, inaſmuch as it traces the Progreſs of our Knowledge, from our firſt and ſimple Perceptions, through all their different Combinations, and all thoſe numerous Deductions that reſult from variouſly comparing them one with another. It is thus that we are let into the natural Frame and Contexture of our own Minds, and learn in what manner we ought to conduct our Thoughts, in order to arrive at Truth, and avoid Error. We ſee how to build one Diſcovery upon another, and by preſerving the Chain of Rea-

Reaſonings uniform and unbroken, to purſue the Relations of Things through all their Labyrinths and Windings, and at length exhibit them to the View of the Soul, with all the Advantages of Light and Conviction.

Operations of the Mind.

IV. BUT as the Underſtanding in advancing from one Part of Knowledge to another, proceeds by a juſt Gradation, and exerts various Acts, according to the different Progreſs it has made, Logicians have been careful to note theſe ſeveral Steps, and have diſtinguiſhed them in their Writings by the Name of the Operations of the Mind. Theſe they make four in Number, and agreeably to that, have divided the whole Syſtem of Logick into four Parts, in which theſe Acts are ſeverally explained, and the Conduct and Procedure of the Mind, in its different Stages of Improvement, regulated by proper Rules and Obſervations. Now, in order to judge how far Logicians have followed Nature, in this Diſtinction of the Power of the Underſtanding, let us take a ſhort View of the Mind, and the manner of its Progreſs, according to the Experience we have of it in ourſelves, and ſee whither the Chain of our own Thoughts will without Conſtraint lead us.

Perception.

V. FIRST then, we find ourſelves ſurrounded with a Variety of Objects, which acting differently upon our Senſes, convey diſtinct Impreſſions into the Mind, and thereby rouſe the Attention and Notice of the Underſtanding. By reflecting too on what paſſes within us, we become ſenſible of the Operations of our own Minds, and attend to them as a new Set of Impreſſions. But in all this there is only bare *Conſciouſneſs*. The Mind, without proceeding any farther, takes notice of the Impreſſions that are made upon it, and views Things in order, as they preſent themſelves one after another. This Attention of the Underſtanding to the Object acting upon it, whereby it becomes ſenſible of the Impreſſions they make, is called by Logicians *Perception*; and the Notices themſelves, as they exiſt in the Mind, and are there treaſured up to be the Materials of Thinking and Knowledge, are diſtinguiſhed by the Name of *Ideas*.

Judgment.

VI. BUT the Mind does not always reſt ſatisfied in the bare View and Contemplation of its Ideas. It is of a more active and buſy Nature, and likes to be aſſembling them together, and comparing them one with another. In this complicated View of Things, it readily diſcerns, that ſome agree, and others diſagree, and joins or ſeparates them according to this Perception. Thus upon com-

paring the Idea of two added to two, with the Idea of four, we at firſt Glance perceive their Agreement, and thereupon pronounce that two and two are equal to four. Again, that white is not black, that five is leſs than ſeven, are Truths to which we immediately aſſent, as ſoon as we compare thoſe Ideas together. This is the firſt and ſimpleſt Act of the Mind, in determining the Relations of Things, when by a bare Attention to its own Ideas, comparing any two of them together, it can at once ſee how far they are connected or diſjoined. The Knowledge thence derived is called *Intuitive*, as requiring no Pains or Examination; and the Act of the Mind aſſembling its Ideas together, and joining or diſjoining them according to the Reſult of its *Perceptions*, is what Logicians term *Judgment*.

Reaſoning. VII. INTUITION affords the higheſt degree of Certainty, it breaks in with an irreſiſtible Light upon the Underſtanding, and leaves no room for Doubt or Heſitation. Could we in all Caſes, by thus putting two Ideas together, diſcern immediately their Agreement or Diſagreement, we ſhould be exempt from Error, and all its fatal Conſequences. But it ſo happens, that many of our Ideas are of ſuch a Nature, that they cannot be thus examined in Concert, or by any immediate Application one to another; and then it becomes neceſſary to find out ſome other Ideas, that will admit of this Application, that by means of them we may diſcover the Agreement or Diſagreement we ſearch for. Thus the Mind wanting to know the Agreement or Diſagreement in Extent, between two incloſed Fields, which it cannot ſo put together, as to diſcover their Equality or Inequality, by an immediate Compariſon, caſts about for ſome intermediate Idea, which by being applied firſt to the one, and then to the other, will diſcover the Relation it is in queſt of. Accordingly it aſſumes ſome ſtated Length, as a Yard, &c. and meaſuring the Fields, one after the other, comes by that means to the Knowledge of the Agreement or Diſagreement in queſtion. The intervening Ideas, made uſe of on theſe Occaſions, are called *Proofs*; and the Exerciſe of the Mind in finding them out, and applying them for the Diſcovery of the Truths it is in ſearch of, is what we term *Reaſoning*. And here let it be obſerved, that the Knowledge gained by Reaſoning, is a Deduction from our intuitive Perceptions, and ultimately founded on them. Thus in the Caſe before-mentioned, having found by meaſuring, that one of the Fields makes three-ſcore ſquare Yards, and the other only fifty-five, we thence conclude

conclude that the firſt Field is larger than the ſecond. Here the two firſt Perceptions are plainly intuitive, and gained by an immediate Application of the Meaſure of a Yard to the two Fields, one after another. The Concluſion, though it produces no leſs certain Knowledge, yet differs from the others in this, that it is not obtained by an immediate Compariſon of the Ideas contained in it one with another, but is a Deduction from the two preceding Judgments, in which theſe Ideas are ſeverally compared with a third, and their Relation thereby diſcovered. We ſee therefore, that Reaſoning is a much more complicated Act of the Mind than ſimple Judgment, and neceſſarily preſuppoſes it, as being ultimately founded on the Perceptions thence gained, and implying the various Compariſon of them one with another. This is the great Exerciſe of the human Faculties, and the chief Inſtrument by which we puſh on our Diſcoveries, and enlarge our Knowledge. A Quickneſs of Mind to find out intermediate Ideas, and apply them ſkilfully in determining the Relations of things, is one of the principal Diſtinctions among Men, and that which gives ſome ſo remarkable a Superiority over others, that we are apt to look upon them as Creatures of another Species.

VIII. Thus far we have traced the Progreſs of the Mind in Thinking, and ſeen it riſing by natural and eaſy Steps, from its firſt and ſimple Perceptions, to the Exerciſe of its higheſt and moſt diſtinguiſhing Faculty. Let us now view it in another Light, as enriched with Knowledge, and ſtored with a Variety of Diſcoveries, acquired by the due Application of its natural Powers. It is obvious to conſider it in theſe Circumſtances, as taking a general Survey of its whole Stock of intellectual Acquiſitions, diſpoſing them under certain Heads and Claſſes, and tying them together, according to thoſe Connections and Dependencies it diſcerns between them. It often happens, in carrying on our Enquiries from Subject to Subject, that we ſtumble upon unexpected Truth, and are encountered by Diſcoveries, which our preſent Train of Thinking gave no Proſpect of bringing in our way. A Man of clear Apprehenſion, and diſtinct Reaſon, who after due Search and Examination, has maſtered any Part of Knowledge, and even made important Diſcoveries in it, beyond what he at firſt expected, will not ſuffer his Thoughts to lie jumbled together, in the ſame confuſed manner as Chance offered them; he will be for combining them into a regular Syſtem,

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where their mutual Dependence may be eaſily traced, and the Parts ſeem to grow one out of another. This is that Operation of the Mind, known by the Name of *Diſpoſition* or *Method*, and comes in the laſt in order, according to the Diviſion of the Logicians, preſuppoſing ſome tolerable Meaſure of Knowledge, before it can have an Opportunity of exerting itſelf in any extenſive degree.

Perception and Judgment, Terms of a very extenſive Signification.

IX. We ſee then that this fourfold Diſtinction of the Powers of the Mind into Perception, Judgment, Reaſoning and Diſpoſition, as well as the Order in which they are placed, have a real Foundation in Nature, and ariſe from the Method and Procedure of our own Thoughts. It is true, there are many other Actions and Modifications of the Underſtanding, beſides thoſe above-mentioned, as Believing, Doubting, Aſſenting, *&c.* but theſe are all implied in the Act of Reaſoning, in the like manner as Compounding, Abſtracting, Remembering, may be referred to the firſt Operation of the Mind, or Perception. This will appear more fully in the Sequel, when we come to handle the ſeveral Parts of Logick ſeparately; at preſent we ſhall content ourſelves with this general Account of Things; only it ſeems neceſſary to obſerve, that *Perception* and *Judgment*, in the Propriety of the *Engliſh* Tongue, have a much more extenſive Signification than Logicians commonly allow them. We not only perceive the Ideas in our own Minds, but we are ſaid alſo to perceive their Agreement or Diſagreement; and hence ariſe the common Phraſes of intuitive Perceptions, Perceptions of Truth, and of the Juſtneſs of Arguments or Proofs; where it is manifeſt, that the Word is applied not only to our Judgments, but alſo to our Reaſonings. In a word, whatever comes under the View of the Mind, ſo as to be diſtinctly repreſented and taken notice of, whether an Idea, Propoſition, Chain of Reaſoning, or the Order or Connection of Things, is thereby rendered an Object of Perception, and gives Employment to this firſt and moſt ſimple of our Faculties. In like manner the Word *Judgment* is ſeldom in common Diſcourſe confined to obvious and ſelf-evident Truths. It rather ſignifies thoſe Conjectures and Gueſſes that we form, in Caſes which admit not of undoubted Certainty, and where we are left to determine by comparing the various Probabilities of Things. Thus a Man of Sagacity and Penetration, who ſees far into the Humours and Paſſions of Mankind, and ſeldom miſtakes in the Opinions he frames of Cha-

Characters and Actions, is ſaid to judge well, or think judiciouſly. For theſe Reaſons, it might not be improper to change the common Names of the two firſt Operations of the Mind, calling the one *ſimple Apprehenſion*, and the other *Intuition*; which two Words ſeem better to expreſs their Nature, and the Manner in which they are converſant about their ſeveral Objects. This Accuracy of Diſtinguiſhing, where there is any the leaſt Difference, is in a peculiar Manner neceſſary in a Treatiſe of Logick, as it is the profeſſed Deſign of that Science, to teach us how to form clear and diſtinct Notions of Things, and thereby avoid being miſled by their Similitude or Reſemblance.

Logick divided into four Parts. Its Uſefulneſs and Excellency.

X. HAVING thus given a general Idea of the four Operations of the Mind, and traced their Connection and Dependence one upon another, I would next obſerve, that in conſequence of this Diviſion of the Powers of the Underſtanding, *Logick* is alſo divided into four Parts, which treat ſeverally of theſe Acts, and give Rules and Directions for their due Conduct and Regulation. The Operations themſelves we have from Nature, but how to exert them juſtly, and employ them with Advantage in the Search of Truth, is a Knowledge that may be acquired by Study and Obſervation. It is certain that we meet with falſe Reaſonings as well as juſt. Some Men are diſtinguiſhed by an Accuracy of Thinking, and a happy Talent of unravelling and throwing Light upon the moſt obſcure and intricate Subjects. Others confound the eaſieſt Speculations; their Underſtandings ſeem to be formed awry, and they are incapable of either conceiving clearly themſelves, or making their Thoughts intelligible to others. If then we ſet ourſelves carefully to obſerve, what it is that makes the one ſucceed ſo well, and how the others come to miſcarry, theſe Remarks will furniſh us with an Art of the higheſt Uſe and Excellency in the Conduct of Life. Now this is the preciſe Buſineſs of *Logick*, to explain the Nature of the human Mind, and the proper Manner of conducting its ſeveral Powers, in order to the Attainment of Truth and Knowledge. It lays open thoſe Errors and Miſtakes we are apt through Inattention to run into, and teaches us how to diſtinguiſh between Truth, and what carries only the Appearance of it. By this means we grow acquainted with the Nature and Force of the Underſtanding, ſee what Things lie within its Reach, where we may attain Certainty and Demonſtration, and when we muſt be contented with bare

Probability. Theſe Conſiderations ſufficiently evince the Uſefulneſs and Benefit of this Science, which ought to be eſtabliſhed as the Foundation and Ground-work of all our other Knowledge, if we really wiſh to ſucceed in our Enquiries. But we ſhall now proceed to treat of its Parts ſeparately, according to the Diviſion given of them above.

THE

THE

ELEMENTS

OF

LOGICK.

BOOK I.

Of SIMPLE APPREHENSION, *or* PERCEPTION.

CHAP. I.

Of the Original of our Ideas.

Simple Apprehenſion and Ideas.

I. THE firſt Thing we obſerve, when we take a View of what paſſes within us, is, that we are capable of receiving Impreſſions from a Variety of Objects, that diſtinct Notices are thereby conveyed into the Underſtanding, and that we are conſcious of their being there. This Attention of the Mind to the Objects acting upon it, is what we call *ſimple Apprehenſion*, and is in Fact the Mind itſelf, taking a View of Things, as repreſented to it by its own Conſciouſneſs. It is by this means that we come to be furniſhed with all thoſe *Ideas* about which our Thoughts are employed. For being ſenſible of the Impreſſions made upon us, and attending to the Perceptions they bring, we can renew them again

again upon Occaſion, even when the Objects that firſt produced them are removed. Now our *Ideas* are nothing elſe but theſe renewed Repreſentations of what we have at any time perceived and felt, by means of which, things are again brought under the View of the Mind, and ſeem to have a kind of Exiſtence in it. It is true, we can upon many Occaſions combine our Ideas variouſly together, and thereby form to ourſelves Repreſentations of things that never had an Exiſtence in Nature, as when we fancy a Centaur, or a Golden Mountain; but it is ſtill certain, that the original Ideas out of which theſe are made, are ſuch as have been conveyed into the Mind by ſome former Impreſſions. It remains therefore to enquire, how we came by our firſt Notions and Perceptions of things. Whence does the Underſtanding derive thoſe original Impreſſions and Characters, which it can combine in ſo many different Ways, and repreſent to itſelf under ſuch infinite Varieties? To this I anſwer, that if we attend carefully to what paſſes in our own Minds, we ſhall obſerve two Inlets of Knowledge, from whence, as from two Fountains, the Underſtanding is ſupplied with all the Materials of thinking.

All our ideas of ſight are derived from objects.

II. FIRST, outward Objects, acting upon our Senſes, rouſe in us a Variety of Perceptions, according to the different manner in which they affect us. It is thus that we come by the Ideas of Light and Darkneſs, Heat and Cold, Sweet and Bitter, and all thoſe other Impreſſions which we term ſenſible Qualities. This great Source and Inlet of Knowledge, is commonly diſtinguiſhed by the Name of *Senſation*, as comprehending all the Notices conveyed into the Mind, by Impulſes made upon the Organs of Senſe.

Or Reflection.

III. BUT theſe Ideas, numerous as they are, are wholly derived to us from without; there is therefore yet another Source of Impreſſions, ariſing from the Mind's Attention to its own Acts, when turning inwards upon itſelf, it takes a View of the Perceptions that are lodged there, and the various Ways in which it employs itſelf about them. For the Ideas furniſhed by the Senſes, give the Mind an Opportunity of exerting its ſeveral Powers; and as all our Thoughts, under whatever Form they appear, are attended with Conſciouſneſs, hence the Impreſſions they leave, when we come to turn the Eye of the Soul upon them, enrich the Underſtanding with a new Set of Perceptions, no leſs diſtinct than thoſe conveyed in by the Senſes. Thus it is that we get Ideas of Thinking, Doubting,

Doubting, Believing, Willing, *&c.* which are the different Acts and Workings of our Minds, repreſented to us by our own Conſciouſneſs. This ſecond Source of Ideas is called *Reflection*, and evidently preſuppoſes Senſation, as the Impreſſions it furniſhes, are only of the various Powers of the Underſtanding, employed about Perceptions already in the Mind.

Riſe and Progreſs of human Knowledge.

IV. THESE Conſiderations, if we duly attend to them, will give us a clear and diſtinct View of the natural Procedure of the human Intellect, in its Advances to Knowledge. We can have no Perception of the Operations of our own Minds until they are exerted; nor can they be exerted before the Underſtanding is furniſhed with Ideas about which to employ them; and as theſe Ideas, that give the firſt Employment to our Faculties, are evidently the Perceptions of Senſe, it is plain, that all our Knowledge muſt begin here. This then is the firſt Capacity of the human Mind, that it is fitted to receive the Impreſſions made upon it by outward Objects affecting the Senſes; which Impreſſions thus derived into the Underſtanding, and *there lodged* for the View of the Soul, employ it in various Acts of Perceiving, Remembering, Conſidering, *&c.* all which are attended with an internal Feeling and Conſciouſneſs. And this leads us to the ſecond Step the Mind takes in its Progreſs towards Knowledge, *viz.* that it can by its own Conſciouſneſs repreſent to itſelf theſe its ſeveral Workings and Operations, and thereby furniſh the Underſtanding with a new Stock of Ideas. From theſe ſimple Beginnings, all our Diſcoveries take their Riſe; for the Mind thus provided with its original Characters and Notices of things, has a Power of combining, modifying, and examining them in an infinite Variety of Lights, by which means it is enabled to enlarge the Objects of its Perception, and finds itſelf poſſeſſed of an inexhauſtible Stock of Materials. It is in the various Compariſon of theſe Ideas, according to ſuch Combinations of them as ſeem beſt to ſuit its Ends, that the Underſtanding exerts itſelf in the Acts of Judging and Reaſoning, by which the capacious Mind of Man puſhes on its Views of Things, adds Diſcovery to Diſcovery, and often extends its Thoughts beyond the utmoſt Bounds of the Univerſe. Thus we ſee as it were at one Glance, the whole Progreſs of the Soul, from the very firſt Dawnings of Perception, till it reaches the Perfection of human Knowledge; nor ſhall we, among all its vaſt Stock of Diſcoveries, or that infinite Variety of Conceptions where-

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of they conſiſt, be able to find one original Idea which is not derived from Senſation or Reflection, or one complex Idea, which is not made up of thoſe original ones.

Diviſion of our Ideas into ſimple and complex.

V. HAVING thus ſhewn how the Mind comes to be firſt furniſhed with Ideas, we ſhall next proceed to the Conſideration of the Ideas themſelves, and endeavour to give ſuch an Account of them, as will beſt ſerve to explain their ſeveral Appearances, and the Manner in which they are formed. It is evident from what has been ſaid above, that they all fall naturally under theſe two Heads. Firſt, thoſe original Impreſſions that are conveyed into the Mind by Senſation and Reflection, and which exiſt there ſimple, uniform, and without any Shadow of Variety. Secondly, thoſe more complex Notions of Things that reſult from the various Combinations of our ſimple Ideas, whether they are conceived to coexiſt of themſelves in any particular Subject, or are united and joined together by the Mind, enlarging its Conceptions of Things, and purſuing the Ends and Purpoſes of Knowledge. Theſe two Claſſes comprehend our whole Stock of Ideas; and when conſidered ſeparately in that Order, wherein they moſt naturally ſeem to offer themſelves to our Thoughts, will, I hope, give ſuch a View of the Conduct and Manner of the Mind, as may contribute not a little to introduce us to an Acquaintance with ourſelves, and make us ſenſible of the Capacity and Extent of the human Intellect. We proceed therefore to a more particular Account of this Diviſion of our Ideas.

CHAP. II.

Of ſimple Ideas.

Simple Ideas what.

I. THE firſt Claſs of our Ideas are thoſe which I diſtinguiſh by the Name of ſimple Perceptions; becauſe they exiſt in the Mind under one uniform Appearance, without Variety or Compoſition. For though external Objects, convey at once into the Underſtanding, many different Ideas all united together, and making as it were one Whole; yet the Impreſſions themſelves are evidently diſtinct, and are conceived by the Mind, each under a Form peculiar to itſelf.

Thus

Thus the Ideas of Colour, Extenſion, and Motion, may be taken in at one and the ſame Time, from the ſame Body; yet theſe three Perceptions are as diſtinct in themſelves, as if they all proceeded from different Objects, or were exhibited to our Notice at different Times. We are therefore carefully to diſtinguiſh between our ſimple and primitive Conceptions, and thoſe different Combinations of them, which are often ſuggeſted to the Mind, by ſingle Objects acting upon it. The firſt conſtitute our original Notices of Things, and are not diſtinguiſhable into different Ideas, but enter by the Senſes ſimple and unmixed. They are alſo the Materials out of which all the others, how complex and complicated ſoever, are formed; and therefore ought deſervedly to be looked on as the Foundation and Ground-work of our Knowledge.

Simple Ideas of Senſation.

II. Now if we take a Survey of theſe Ideas, and their ſeveral Diviſions and Claſſes, we ſhall find them all ſuggeſted to us, either by our Senſes, or the Attention of the Mind to what paſſes within itſelf. Thus our Notices of the different Qualities of Bodies, are all of the Kind we call ſimple Ideas, and may be reduced to five general Heads, according to the ſeveral Organs which are affected by them. Colours, *&c.* and Sounds are conveyed in by the Eyes and Ears; Taſtes, and Smells by the Noſe and Palate; and Heat, Cold, and Solidity, *&c.* by the Touch. Beſides theſe, there are others which make Impreſſions on ſeveral of our Senſes, as Extenſion, Figure, Reſt and Motion, *&c.* the Ideas of which we receive into our Minds both by ſeeing and feeling.

Simple Ideas of Reflection, &c.

III. If we next turn our View upon what paſſes within ourſelves, we ſhall find another Set of ſimple Ideas, ariſing from our Conſciouſneſs of the Acts and Operations of our own Minds. Perception or Thinking, and Volition or Willing, are what every Man experiments in himſelf, and cannot avoid being ſenſible of. I ſhall only obſerve farther, that beſides all the above-mentioned Perceptions, there are others that come into our Minds by all the Ways of Senſation and Reflection; ſuch are the Ideas of Pleaſure and Pain, Power, Exiſtence, Unity, Succeſſion, *&c.* which are derived into our Underſtandings, both by the Action of Objects without us, and the Conſciouſneſs of what we feel within. It is true ſome of theſe Ideas, as of Extenſion and Duration, cannot be conceived altogether without Parts; nevertheleſs they are juſtly rank'd among our ſimple Ideas; becauſe their Parts being all

all of the ſame Kind, and without the Mixture of any other Idea, neither of them can be reſolved into two diſtinct and ſeparate Conceptions: Thus they ſtill anſwer the Definition given above, of being one uniform Appearance in the Mind, without Variety or Plurality. But to prevent confounding our ſimple Ideas of Space and Duration, with thoſe complex Modes of them, marked out by the ſeveral Meaſures commonly in Uſe, as Yards, Miles, Days, Years, &c. it may perhaps be more proper, to conſider the leaſt Portions of either, whereof we can form a clear and diſtinct Perception, as the ſimple Ideas of that kind, out of which all their other Modes and Combinations are formed. Such an Inſtant, or Point, may be conceived to be the ſame in reſpect of Duration or Space, as Unity is in reſpect of Number; and will ſerve beſt to ſhew, how by a continued Addition or Repetition, our more enlarged and complex Ideas are made up.

Simple Ideas have no Admiſſion but by the proper Inlets of Nature.

IV. HAVING thus given a general View of our ſimple Ideas, I have ſtill two Obſervations to make concerning them. The firſt is, that they are ſuch as can only be conveyed into the Mind by the proper Channels and Avenues provided by Nature; inſomuch that if we are deſtitute of any of thoſe Inlets, by which the Impreſſions that produce them are wont to be admitted, all the Ideas thence ariſing are abſolutely loſt to us; nor can we, by any Quickneſs of Underſtanding, find a Remedy for this Want. A Man born blind, is incapable of the Ideas of Light and Colours; in like manner as one who is deaf, can form no Notion or Conception of Sound. Hence it appears, that theſe our ſimple Ideas are juſt ſuch as Nature has furniſhed them, and have no Dependence on our Will; we can neither deſtroy them when in the Underſtanding, nor faſhion or invent any new one, not taken in by the ordinary means of Perception. So that we here ſee the utmoſt Bounds of human Knowledge, which however mighty and enlarged, cannot exceed the Limits of theſe our ſimple original Ideas, and their various Combinations.

They furniſh ample Materials of Knowledge.

V. AND this leads me to the ſecond Obſervation I propoſed to make, which is, that though the Mind cannot, in multiplying its Conceptions of Things, advance one Pace beyond the Materials furniſhed it by Senſe and Conſciouſneſs; yet as it has a Power of combining, modifying and enlarging them, in all the different Ways in which they can be put together, it thereby finds itſelf in Poſſeſſion of an inexhauſtible Treaſure of Ideas, ſufficient to employ

ploy it to the full Extent of all its Powers, and furniſh Matter for thoſe various Opinions, Fancies, and Views of Things, that make up the Subject of its Thoughts and Contemplations. Let us but reflect upon the ſingle Idea of Unity or One, and obſerve what a Variety of Combinations are formed, by continually adding it to itſelf; inſomuch that the Underſtanding finds no Stop or Boundary, in its Progreſs from Number to Number. In what an Infinity of different Lights may Extenſion alone be conſidered? What Limits can be ſet to that endleſs Diverſity of Figures, which it is in the Power of the Imagination to faſhion and repreſent to itſelf? If to theſe we add thoſe numberleſs other Combinations, that reſult from variouſly compounding and comparing the reſt of our ſimple Ideas, we ſhall have little Reaſon to complain of being limited to a ſcanty Meaſure of Knowledge, or that the Exerciſe of the human Faculties is confined within narrow Bounds. But having traced the Progreſs of the Mind through its original and ſimple Ideas, until it begins to enlarge its Conceptions by uniting and tying them together; it is now time to take a Survey of it as thus employed in multiplying its Views, that we may ſee by what Steps it advances from one Degree of Improvement to another, and how it contrives to manage that infinite Stock of Materials it finds itſelf poſſeſſed of.

The Diviſion of complex Ideas into thoſe of real Exiſtences, and thoſe framed by the Mind.

VI. WHOEVER attentively conſiders his own Thoughts, and takes a View of the ſeveral complicated Ideas that from time to time offer themſelves to his Underſtanding, will readily obſerve, that many of them are ſuch as have been derived from without, and ſuggeſted by different Objects affecting his Perception; others again are formed by the Mind itſelf, variouſly combining its ſimple Ideas, as ſeems beſt to anſwer thoſe Ends and Purpoſes it has for the preſent in View. Of the firſt Kind are all our Ideas of Subſtances, as of a Man, a Horſe, a Stone, Gold: Of the ſecond are thoſe arbitrary Collections of things, which we on many Occaſions put together, either for their Uſefulneſs in the Commerce of Life, or to further the Purſuit of Knowledge: ſuch are our Ideas of ſtated Lengths whether of Duration or Space, as Hours, Months, Miles, Leagues, *&c.* which Diviſions are apparently the Creatures of the Mind, inaſmuch as we often find them different in different Countries, a ſure ſign that they are taken from no certain and invariable Standard in Nature. Many of our Ideas of human Actions may be alſo referred to this Head,

as

as Treaſon, Inceſt, Manſlaughter; which complex Notions we do not alwayas derive from an actual View of what theſe Words deſcribe, but often from combining the Circumſtances of them in our own Minds, or, which is the moſt uſual Way, by hearing their Names explained, and the Ideas they ſtand for enumerated. Theſe two Claſſes comprehend all our complex Conceptions, it being impoſſible to conceive any that are not either ſuggeſted to the Underſtanding by ſome real Exiſtences, or formed by the Mind itſelf, arbitrarily uniting and compounding its Ideas. We ſhall treat of each in Order.

CHAP. III.

Of our Ideas of Subſtances.

Ideas of Subſtances, Collections of ſimple Ideas, held together by unknown Support.

I. THE firſt Head of complex Ideas mentioned in the foregoing Chapter is that of *Subſtances*, which I chuſe to handle before the other, becauſe, as will afterwards appear, the Notices derived from this Source, very much help us, in forming thoſe arbitrary Collections, which make up the ſecond Diviſion. For in many of them, we take our Hints from the Reality of things, and combine Ideas that actually exiſt together, though often with an Excluſion of others, as will be explained when we come to treat of abſtract and univerſal Notions. It has been already obſerved, that the Impreſſions conveyed into the Underſtanding from external Objects, conſiſt for the moſt part of many different Ideas joined together, which all unite to make up one Whole. Theſe Collections of various Ideas, thus co-exiſting in the ſame common Subject, and held together by ſome unknown Bond of Union, have been diſtinguiſhed by the Name of *Subſtances*, a Word which implies their ſubſiſting of themſelves, without Dependence (at leaſt as far as our Knowledge reaches) on any other created Beings. Such are the Ideas we have of Gold, Iron, Water, a Man, &c. For if we fix upon any one of theſe, for inſtance Gold, the Notion under which we repreſent it to ourſelves, is that of a Body, yellow, very weighty, hard, fuſible, malleable, &c. Where we may obſerve, that the ſeveral Properties that go to the Compoſition of Gold, are repreſented

repreſented to us by clear and evident Perceptions; the Union too of theſe Properties, and their thereby conſtituting a diſtinct Species of Body, is clearly apprehended by the Mind; but when we would puſh our Enquiries farther, and know wherein this Union conſiſts, what holds the Properties together, and gives them their Self-ſubſiſtence, here we find ourſelves at a Loſs. However, as we cannot conceive Qualities, without at the ſame time ſuppoſing ſome Subject in which they inhere; hence we are naturally led to form the Notion of a Support, which ſerving as a Foundation for the Coexiſtence and Union of the different Properties of things, gives them that ſeparate and independent Exiſtence, under which they are repreſented to our Conception. This Support we denote by the Name *Subſtance*; and as it is an Idea applicable to all the different Combinations of Qualities that exiſt any where by themſelves, they are accordingly all called Subſtances. Thus a Houſe, a Bowl, a Stone, *&c.* having each their diſtinguiſhing Properties, and being conceived to exiſt independent one of another, the Idea of Subſtance belongs alike to them all.

The Diviſion of Modes into Eſſential and Accidental.

II. IN Subſtances therefore there are two things to be conſidered: Firſt the general Notion of Self-ſubſiſtence, which, as I have ſaid, belongs equally to them all; and then the ſeveral Qualities or Properties, by which the different Kinds and Individuals are diſtinguiſhed one from another. Theſe Qualities are otherwiſe called Modes, and have been diſtinguiſhed into Eſſential and Accidental, according as they are conceived to be ſeparable or inſeparable from the Subject to which they belong. Extenſion and Solidity are eſſential Modes of a Stone, becauſe it cannot be conceived without them; but Roundneſs is only an accidental Mode, as a Stone may exiſt under any Shape or Figure, and yet ſtill retain its Nature and other Properties.

The Notion of Self-ſubſiſtence inſeparable from Subſtances.

III. I MIGHT run farther into theſe Diviſions and Subdiviſions, in which Logicians have been very fertile; but as they tend little to the Advancement of real Knowledge, and ſerve rather to fill the Memory with Words and their Significations, than furniſh clear and diſtinct Apprehenſions of Things, I ſhall not trouble the Reader with them. It is more material to obſerve, that the Change of Properties in any Subſtance, though it oft-times changes the Nature of that Subſtance, that is, its Species or Kind; yet it never deſtroys

the general Notion of Self-subſiſtence, but leaves that equally clear and applicable, as before any ſuch Alteration happened. Wood by the Application of Fire is turned into Charcoal; but Charcoal however different from Wood, is ſtill a Subſtance. In like manner, Wax may be converted into Flame and Smoak, a human Body will moulder into Duſt, yet theſe Alterations deſtroy not their Being or Exiſtence; they are ſtill Subſtances as before, though under a different Form and Appearance. In the ſeveral Experiments made by Chymiſts, Bodies undergo many Changes, and put on ſucceſſively a great Variety of different Shapes; and yet by the Skill and Addreſs of the Operator, they are often brought back to their firſt and primitive Form. What Alteration can we ſuppoſe the Fire, or the Application of any other Body to make, unleſs on the Configuration, Texture, or Coheſion of the minute Parts? When theſe are changed, the Body is proportionably changed; when they return to their original State, the Body likewiſe puts on its firſt and natural Appearance.

Foundation of the different Species of corporeal Subſtances.

IV. ALL that is eſſential to Matter therefore, is the Coheſion of ſolid extended Parts; but as theſe Parts are capable of innumerable Configurations, as their Texture may be very various, and the internal Conſtitution thence ariſing be of Conſequence extremely different in different Bodies, we may from theſe Conſiderations conceive pretty clearly, the Source and Foundation of all the different Species of corporeal Subſtances. Nor is this a Notion taken up at Random, or one of thoſe chimerical Fancies in Philoſophy, derived rather from a Warmth and Livelineſs of Imagination, than Obſervations drawn from Things themſelves. Do we not daily ſee our Food, by the Changes it undergoes in the different Avenues of the Body, converted firſt into Blood, and thence employed in nouriſhing, building up, and enlarging, the ſeveral Parts of that wonderful Fabrick? Rain deſcending from the Clouds, and mixing with the Mold or Earth of a Garden, becomes Aliment for Trees of various Kind, puts on a Diverſity of Forms, according to the different Channels and Conveyances thro' which it paſſes, and at laſt after innumerable Changes and Tranſmutations, ſprouts forth in Leaves, opens in Buds, or is converted into the Subſtance of the Tree itſelf. Can we conceive any greater Difference between the component Parts of Gold, and thoſe of a Stone, than between the moiſtened Particles of Garden Mold, and thoſe new Forms and Figures, under which they appear, after they have been

been thus fashioned by Nature, for the Purposes of Growth and Nourishment?

Essence of Substances nothing but the internal Structure and Constitution.

V. If this be duly attended to, it will not appear wonderful to assert, that the Variety of material Substances, arises wholly from the different Configuration, Size, Texture, and Motion of the minute Parts. As these happen to be variously combined, and knit together under different Forms, Bodies put on a Diversity of Appearances, and convey into the Mind by the Senses, all those several Impressions, by which they are distinguished one from another. This internal Constitution or Structure of Parts from which the several Properties that distinguish any Substance flow, is called the Essence of that Substance, and is in Fact unknown to us, any farther than by the perceivable Impressions it makes upon the Organs of Sense. Gold, as has been said, is a Body yellow, very weighty, hard, fusible, malleable, &c. That inward Structure and Confirmation of its minute Particles, by which they are so closely linked together, and from which the Properties above-mentioned are conceived to flow, is called its Essence; and the Properties themselves are the perceivable Marks that make it known to us, and distinguish it from all other Substances. For our Senses are not acute enough to reach its inward Texture and Constitution. The Parts themselves, as well as their Arrangement, lie far beyond the utmost Penetration of human Sight, even when assisted by Microscopes, and all the other Contrivances of Art.

Is wholly unknown to us, nor serves to distinguish the Species.

VI. Thus as to the Essence, or internal Constitution of Gold, we are wholly in the dark; but many of the Properties derived from this Essence, make obvious and distinct Impressions, as the Weight, Hardness, and yellow Colour, &c. These Properties combined together, and conceived as co-existing in the same common Subject, make up our complex Idea of Gold. The same may be said of all the other Species of corporeal Substances, as Lead, Glass, Water, &c. our Ideas of them being nothing else, but a Collection of the ordinary Qualities observable in them.

Yet is rightly presumed to be distinct in all the several Kinds.

VII. This however ought to be observed, that though the Essence or inward Structure of Bodies, is altogether unknown to us, yet we rightly judge, that in all the several Species, the Essences are distinct. For each Species being a Collection of

Properties, which taken together, are different from thoſe of every other Species, the Conformation of Parts, on which thoſe Properties depend, muſt in like manner be different; and this, as we have ſaid, conſtitutes the Eſſence. Iron and Glaſs are evidently diſtinct Kinds of Body, their perceivable Qualities have little or nothing common; and therefore the inward Structure or Conſtitution from which theſe Qualities flow, cannot be the ſame in both. But after all, this is the only thing we can with Certainty affirm concerning theſe Eſſences, which lying ſo wholly in the Dark, we ſhall do well to lay them aſide in our Reaſonings about Things, and ſtick to thoſe more intelligible and ſettled Ideas, got by joining together their various Properties and Powers. For thus only is true Knowledge promoted, when we argue from known Qualities, and not from a ſuppoſed internal Conſtitution, which however real in itſelf, yet comes not within the Reach of our Faculties, and therefore can never be a Ground to us, for any Diſcoveries or Improvements.

By what Steps we arrive at the Notion of immaterial Subſtances.

VIII. MATERIAL Subſtance, as I have ſaid, includes the Idea of ſolid, cohering, extended Parts, and is divided into different Claſſes, according to the different Impreſſions made upon the Organs of Senſe. But beſides theſe ſenſible Ideas received from without, we alſo experiment in ourſelves Thinking and Volition. Theſe Actions have no Connection with the known Properties of Body; nay, they ſeem plainly inconſiſtent with ſome of its moſt eſſential Qualities. For the Mind not only diſcovers no Relation between Thinking, and the Motion or Arrangement of Parts; but it alſo perceives that Conſciouſneſs, a ſimple individual Act, can never proceed from a compound Subſtance, capable of being divided into many. Let us ſuppoſe for Inſtance, a Syſtem of Matter endowed with Thought; then either all the Parts of which this Syſtem is compoſed muſt think, which would make it not one, but a Multitude of diſtinct conſcious Beings; or its Power of thinking muſt ariſe, from the Connection of the Parts one with another, their Motion and Diſpoſition, &c. which all taken together, contribute to the Production of Thought. But it is evident that the Motion of Parts, and Manner of combining them, can produce nothing but an artful Structure, and various Modes of Motion. All Machines of human Compoſition, as Watches, Clocks, &c. however artfully their Parts are ſet together, however complicated their Structure, though we conceive innumerable different Motions, variouſly

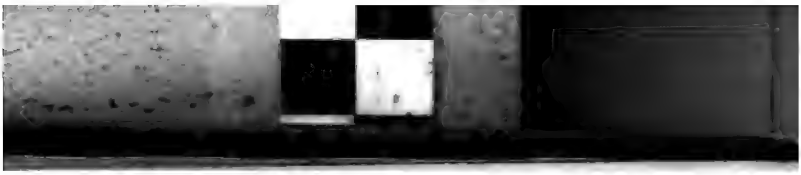
variouſly conjoined, and running one into another with an endleſs Diverſity, yet never produce any thing but Figure and Motion. If a Clock tells the Hour and Minute of the Day, it is only by the Motion of the different Hands, pointing ſucceſſively at the Figures marked on the Hour-Plate for that Purpoſe. We never imagine this to be the Effect of Thought or Intelligence, nor conceive it poſſible by any Refinement of Structure, ſo to improve the Compoſition, as that it ſhould become capable of Knowledge and Conſciouſneſs. The Reaſon is plain: Thought is ſomething altogether different from Motion and Figure, there is not the leaſt Connection between them; and therefore it can never be ſuppoſed to reſult from them.

Which we call reaſonable Spirits.

IX. THIS then being evident, that Intelligence cannot ariſe from an Union or Combination of unintelligent Parts; if we ſuppoſe it to belong to any Syſtem of Matter, we muſt neceſſarily attribute it to all the Parts of which that Syſtem is compoſed; whereby inſtead of one, we ſhall, as was before obſerved, have a Multitude of diſtinct conſcious Beings. And becauſe Matter, how far ſoever we purſue the Minuteneſs of its Parts, is ſtill capable of repeated Diviſions, even to Infinity; it is plain, that this Abſurdity will follow us, through all the Suppoſitions that make Thought inherent in a material Subſtance. Finding therefore Conſciouſneſs incompatible with the Coheſion of ſolid ſeparable Parts, we are neceſſarily led to place it in ſome other Subſtance, of a diſtinct Nature and Properties, which we call *Spirit*.

Body and Spirit, diſtinct Subſtances.

X. AND here it is carefully to be obſerved, that the ſeveral Species of *corporeal* Subſtances, tho' diſtinguiſhed one from another, and rank'd under different Names; yet agreeing in ſome common Properties, which taken together make up the Notion of Body, are thence all conceived to partake of this general Nature, and to differ only as different Modifications of the ſame Subſtance. Whatever conſiſts of ſolid extended Parts, is called Matter; and as all the various Species of Body, however diſtinguiſhed from one another by their ſeveral Properties, have yet this in common, that they are made up of ſuch ſolid ſeparable Parts, hence they fall naturally under the general Denomination of material Beings, and are not conceived to differ but in their Form. Thus Gold, Antimony, Wood, *&c.* alike partake of the Notion of Body, they are all equally material Subſtances, and have no other Difference, but



what ariſes from the different Structure and Conformation, *&c.* of Parts, as we have ſhewn above. But *Spirit* is ſomething altogether diſtinct from Body, nay and commonly placed in Oppoſition to it; for which Reaſon, the Beings of this Claſs are called *immaterial*, a Word that implies not any thing of their Nature, but merely denotes its Contrariety to that of Matter.

There may be many various Species of Subſtances, beſides thoſe that come within the Reach of our Faculties.

XI. BODY and Spirit therefore, differ not as Species of the ſame Subſtance, but are really diſtinct Kinds of Subſtances, and ſerve as general Heads, under which to rank all the particular Beings that fall within the Compaſs of our Knowledge. For we having no Ways of Perception but Senſe and Conſciouſneſs, can have no Notices of Things, but as derived from theſe two Inlets, By our Senſes we are informed of the Exiſtence of ſolid extended Subſtances, and Reflection tells us, that there are thinking conſcious ones. Beyond theſe our Conceptions reach not, and therefore, though there may be many other Kinds, as different from them as they are from one another, yet having no Faculties ſuited to them, they are as remote from our Knowledge, as Light and Colours from the Apprehenſion of a Man born blind. I believe it will hardly be doubted, but the Subſtance of the Creator, differs more from that of his Creatures, than any two created Subſtances can from one another; and therefore when we call God a Spirit, we ought not raſhly to preſume, that he is ſo in the ſame Senſe, in which the human Soul is a Spirit. The Word is indeed uſed by us, to denote in general, all thinking intelligent Subſtances, in which Senſe God is very fitly called a Spirit. But it were the Height of Folly to imagine, becauſe this Name is applied, as well to the Mind of Man, as the Creator, that therefore they partake of one common Nature, and differ only as different Modifications of the ſame Subſtance. This I mention here, to check the Preſumption of the human Mind, always forward to conclude that every thing comes within its Reach, and to deny Exiſtence to whatever exceeds the Comprehenſion of its ſcanty and limited Powers. Beings of a ſuperior Claſs, may enjoy many Ways of Perception unknown to us, from which they receive Notices as different from thoſe in our Minds, as the Ideas we apply to Spirit, are from the Ideas we apply to Body. Solid and thinking Beings are, it is true, the only Ideas of Subſtance, that we are able to frame; but this is no more an Argument againſt the Exiſtence

of

of other Kinds, than the want of the Ideas of Light and Colours, in a blind Man, would be a good Argument againſt the Reality or Poſſibility of ſuch Perceptions.

Difference in the Manner of conceiving corporeal and ſpiritual Subſtances.

XII. BEFORE I diſmiſs this Subject, it may not be improper to take Notice of a remarkable Difference, as to the Manner of our conceiving corporeal and ſpiritual Subſtances. Thoſe of the firſt Kind convey themſelves into the Mind by Impreſſions made upon the Organs of Senſe; and as theſe Impreſſions are different in different Bodies, the Ideas they produce, muſt of courſe vary in proportion. Thus we get Perceptions of diſtinct Powers and Properties, and range Bodies into Claſſes, according as we find them to agree or diſagree in theſe their obſervable Qualities. But it is not ſo in our Notion of Spirits; for having no Conception of their Powers and Operations, but what we feel and experience within ourſelves, we cannot aſcribe to them Properties or Ways of Knowledge, diſtinct from thoſe ſuggeſted to us by our own Conſciouſneſs. And hence it is, that though we readily own there may be various Ranks of ſpiritual Beings, yet we are not apt to imagine them divided from one another, by any Diverſity of Powers and Operations, but merely by poſſeſſing the ſame Powers, *&c.* in a higher or lower Degree. It is not however repugnant to Reaſon, that they ſhould be diſtinguiſhed by their ſeveral Properties, in like manner as ſenſible Things are by the different Qualities obſervable in them; but Properties of intellectual Natures, diſtinct from thoſe of our own Minds, being altogether remote from our Conception, cannot ſerve us as a Means, whereby to diſtinguiſh their different Orders. We are therefore neceſſitated to conceive of them in a manner ſuited to our Way of Knowledge, and when we would rank them into Species, according to the Degrees of Superiority they are imagined to poſſeſs in the Scale of Being, we aſcribe to them what we find moſt excellent in ourſelves, as Knowledge, Thinking, Foreſight, *&c.* and thoſe in different Meaſures, proportioned to the Station peculiar to each Rank or Species. But that this is a very imperfect Way of diſtinguiſhing the various Orders of intellectual Beings, will not, I think, need many Words to make appear; eſpecially if we conſider, that the Manner of communicating their Thoughts, without the Intervention of bodily Organs, is a Thing to us altogether incomprehenſible, and neceſſarily leads us to ſuppoſe, that

they have Ways of Perception and Knowledge, which our Faculties cannot give us any Notice of.

The Bounds of Knowledge in our present State very narrow.

XIII. BUT I ſhall not purſue theſe Reflections farther, what has been ſaid ſufficing, to give us ſome little Inſight into the Extent and Capacity of our own Minds; to convince us, that our preſent State will not admit of a perfect and adequate Comprehenſion of Things; and to let us ſee, that there may be other Ways of Knowledge, beyond the Reach of the Faculties we now enjoy; which yet in ſucceeding Stages of our Exiſtence, we may arrive at, when being freed from the preſent cumberſome Load of the Body, we ſhall mount up to Stations of greater Eminence, and advance by a perpetual Series of Approaches towards him, who is the Standard of Perfection and Happineſs.

CHAP. IV.

Of Ideas framed by the Mind.

In framing many complex Ideas, the Mind is wholly active, and proceeds by a voluntary Choice.

I. HITHERTO we have conſidered only, ſuch Combinations of our ſimple Ideas, as have a real Union in Nature, and are ſuggeſted to the Mind by Things themſelves, variouſly affecting our Perception; it is now Time to take a View of the other Claſs of our complex Notions; I mean thoſe arbitrary Collections of different Ideas, which we on many Occaſions bring together, by that Power which we find in ourſelves, of uniting, comparing, and diverſifying our Notices of Things. In the Reception of ſimple Ideas, and even in thoſe of Subſtances, the Underſtanding is wholly paſſive, and the Perceptions produced correſpond to the Impreſſions made upon it. When we ſee a Houſe, or a Tree, they neceſſarily appear each under its proper Form; nor is it in our Power to receive from theſe Objects, other Ideas than what they are fitted to produce. But in this ſecond Claſs of complex Conceptions, the Mind acts voluntarily and of Choice; it combines only ſuch Ideas as are ſuppoſed beſt to ſuit its preſent Purpoſe, and alters or changes theſe Combinations, by inſerting ſome, and throwing out others, according as the Circumſtances of Things require their being

being viewed in different Lights. Now as this is by far the moſt comprehenſive Branch of our Ideas, and includes thoſe that moſt frequently occur in the Search and Purſuit of Knowledge, I ſhall endeavour to treat of them in the exacteſt Order and Method, and for that purpoſe range them under ſeveral Heads, according to the different Acts of the Mind exerted in framing and putting them together.

Three ſeveral Acts exerted by the Mind in framing its arbitrary Ideas, viz. Compoſition.

II. THESE Acts may in the general be all reduced to three. 1. *Compoſition*, when we join many ſimple Ideas together, and conſider them as one Picture or Repreſentation. Such are our Ideas of Beauty, Gratitude, a Furlong, *&c.* And here let it be obſerved, that the Mind ſometimes confines itſelf to the various Conſideration of the ſame Idea, and by enlarging it in different Degrees, exhibits it under a Diverſity of Forms. Thus by adding Units together, in diſtinct ſeparate Collections, we come by all the ſeveral Combinations of Numbers, as a Dozen, a Score, a Million. At other times, we unite Perceptions of different Kinds, in which caſe the Compoſition is more manifeſt, and the Idea itſelf becomes of courſe more complicated. Harmony for inſtance is a compound Idea, made up of many different Sounds united; all which the Muſician muſt have, and put together in his Mind, before the Ear can be entertained with the actual Performance. Now although the Act of the Mind, is in ſome Meaſure exerted in the framing of all our complex Notions, yet as many of them include certain limited and particular Conſiderations, ariſing from other Operations of the Mind employed about them, it is neceſſary to take account of theſe Acts alſo, if we would conceive clearly the Manner, in which the ſeveral Species of our compound Ideas are formed.

Abſtraction.

III. 2. THE next Operation therefore of the Mind, about its Ideas, is *Abſtraction*; when we ſeparate from any of our Conceptions, all thoſe Circumſtances that render it particular, or the Repreſentative of a ſingle determinate Object; by which means, inſtead of ſtanding for an Individual, it is made to denote a whole Rank or Claſs of Things. Thus upon ſeeing, for inſtance, a Square, or Circle, we leave out the Conſideration of their Bulk and every thing elſe peculiar to them, as they immediately affect our Sight, retain only the Notion of their Figure and Shape. In this manner we get our *general* Ideas; for ſuch naked Appearances, ſeparated from the Circumſtances of Time, Place, *&c.*

&c. ſerve the Mind as Standards, by which to rank and denominate particular Objects. When therefore we meet with a Figure, anſwering to the Shape and Form we have laid up in our Underſtandings, it is immediately referred by the Mind to this Pattern, and called by its Name, which by this means becomes proper to the whole Species. Thus a Square, or Circle, are *univerſal* Terms, common to all Figures of that particular Shape, and alike applicable to them where-ever they exiſt; in like manner as the Ideas themſelves are *general*, and Repreſentatives of all of the Kind.

And Compariſon.

IV. 3. THE third and laſt Act of the Mind about its Ideas, is the *comparing* them one with another; when we carry our Conſideration of Things beyond the Objects themſelves, and examine their Reſpects and Correſpondencies, in reference to other Things which the Mind brings into a View at the ſame time. It is thus we get all our Idea of *Relations*, as of Greater, Leſs, Older, Younger, Father, Son, and innumerable others. This threefold View of our Ideas, as either compounded of many others put together, or made univerſal by the Abſtraction of the Mind, or as repreſenting the various Relations and Habitudes of Things, will give us an Opportunity of obſerving, whatever is moſt curious and uſeful in this fundamental Branch of Knowledge, and of explaining the Manner and Procedure of the Underſtanding, in enlarging its Views, and multiplying the Objects of Perception. That we may therefore conceive of this Matter with the greater Order and Clearneſs, we ſhall make each of theſe ſeveral Diviſions, the Subject of a diſtinct Section.

SECT. I.

Of Compound Ideas.

Compound Ideas conſidered here merely as Combinations of the Underſtanding.

I. WE begin therefore with thoſe Ideas which may be properly termed *compound*, as being derived from that Power the Mind has of uniting many Conceptions into one. Though this Claſs comprehends, in ſome ſort, all our complex Notions; yet they are at preſent conſidered, merely as they are Combinations of the Underſtanding,

ſtanding, and with a view to thoſe particular Ideas, out of which they are framed. Here, as was already obſerved, the Mind ſometimes proceeds, by enlarging and diverſifying the ſame Idea: at other times it brings together Ideas of different Kinds, and in both ways finds infinite Scope and Variety. But that we may follow the natural Procedure of the Intellect, and trace it in its Advances from ſimple to more complicated Acts, we ſhall firſt take a View of it as employed about one and the ſame Idea, where perhaps we may meet with ſuch Inſtances of Addreſs, Management, and Contrivance, as will appear perfectly aſtoniſhing to one, who never ſet himſelf ſeriouſly to conſider the Manner and Conduct of his own Mind.

Unity the Original and Foundation of all our Ideas of Number.

II. THE moſt obvious and ſimple Idea we have, is that of *Unity* or *One*. By adding it to itſelf continually, and retaining the ſeveral Collections in our Minds, we come by all the different Combinations of *Numbers*, in which we readily perceive an endleſs Diverſity. All theſe Ideas are nevertheleſs evidently diſtinct among themſelves, the Addition of a ſingle Unit, conſtituting a Number as clearly different from that immediately before it, as any two the moſt remote Ideas, are one from another. But that the Underſtanding may not loſe itſelf, in the Conſideration of thoſe infinite Combinations, of which Unity is capable, it proceeds by regular Steps, and beginning with the original Idea itſelf, purſues it through all its Varieties, as they are formed by the repeated continual Addition of Unit after Unit. Thus Numbers are made to follow one another in an orderly Progreſſion, and the ſeveral ſucceſſive Collections are diſtinguiſhed by particular Names.

The artful Compoſition of the Names of Numbers a great Help to our Conceptions.

III. AND here we may take notice of a wonderful Artifice, made uſe of by the Mind, to facilitate and help it forward in its Conceptions. For as the Advance from Number to Number is endleſs, where they all to be diſtinguiſhed by different Denominations, that had no Connection or Dependence one upon another, the Multitude of them muſt ſoon overcharge the Memory, and render it impoſſible for us to go any great Way in the Progreſs of Numbering. For this Reaſon, it is ſo contrived, that the Change of Names is reſtrained to a few of the firſt Combinations, all the reſt that follow, being marked by a Repetition of the ſame

ſame Terms, variouſly compounded and linked together. Thus *thirteen* is ten and three, *fourteen* ten and four, and ſo on to *twenty*, or two tens, when we begin again with one, two, *&c.* until we advance to *thirty*, or three tens. In this Manner the Progreſſion continues, and when we arrive at ten tens, to prevent Confuſion, by a too frequent Repetition of the ſame Word, that Sum is diſtinguiſhed by the Name of a *Hundred*. Again ten hundred is called a *Thouſand*; at which Period the Computation begins anew, running through all the former Combinations, as ten thouſand, a hundred thouſand, ten hundred thouſand; which laſt Collection, for the Reaſons mentioned above, has the Name of a *Million* appropriated to it. With this Million we can begin as before, until it is repeated a million of times, when if we change the Denomination to *Billions*, and advance in the ſame manner through *Trillions*, *Quartillions*, the Series may be carried on without Confuſion, to any Length we pleaſe.

And one of the principal Reaſons that our Ideas of Numbers are ſo clear and eaſily applied.

IV. THIS artful Combination of Names, to mark the gradual Increaſe of Numbers, is perhaps one of the greateſt Refinements of the human Underſtanding, and particularly deſerves our Admiration, for the Manner of the Compoſition; the ſeveral Denominations being ſo contrived, as to diſtinguiſh exactly the Stages of the Progreſſion, and point out their Diſtance from the Beginning of the Series. By this means it happens, that our Ideas of Numbers are of all others the moſt accurate and diſtinct, nor does the Multitude of Units aſſembled together, in the leaſt puzzle or confound the Underſtanding. It is indeed amazing, that the Mind of Man, ſo limited and narrow in its Views, ſhould yet here ſeem to ſhake off its natural Weakneſs, and diſcover a Capacity of managing with Eaſe the moſt bulky and formidable Collections. If we enquire particularly into the Reaſons of this, we ſhall find it wholly owing to the Addreſs of the Mind, in thus diſtinguiſhing Numbers by different Names, according to the natural Order of Progreſſion. For as thoſe Names are made to grow one out of another, they may be aptly compared to a Chain, all whoſe Parts are linked together, by an obvious and viſible Connection. Hence comes it to paſs, that when we fix our Thoughts upon any Number, however great and ſeemingly unmanageable; yet if it is once determined to a particular Name, we find it eaſy to run back through all the Stages of the Progreſſion, even till we arrive

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at Unity itſelf. By this means we ſee, with a ſingle Glance of our Minds, not only the two Extremes of the Number under Conſideration, but alſo the ſeveral intermediate Parts, as they are united to make up the whole.

As they help us to a clear Perception of the interjacent Parts.

V. Now it is to this clear and accurate View of the interjacent Ideas, that we owe our ſo diſtinct Perception of the various Combinations of Numbers. And indeed we may obſerve in the general, that all our Ideas of Quantity, eſpecially when they grow to be very large, are no otherwiſe aſcertained, than by that Perception we have of the intervening Parts, lying, if I may ſo ſay, between the Extremes. When we look at any Object conſiderably diſtant from us, if we have a clear View of the interjacent Lands and Houſes, we are able to determine pretty nearly of its Remoteneſs; but if without ſuch a Knowledge of the intervening Spaces, we ſhould pretend to judge of the Diſtance of Objects, as when we ſee the Spire of a Steeple, behind a Wall, or beyond a Mountain, every one's Experience is a Proof, how liable we are in theſe Caſes to be deceived. Juſt ſo it is in judging of Duration. When we carry back our Thoughts to any paſt Period of our Lives, without Conſideration of the Number of Years, or Months; we find, that our Idea of the Time elapſed grows more diſtinct, in proportion as we become ſenſible of the intermediate Parts of our Exiſtence. At firſt, we are apt to judge the Diſtance extremely ſhort, but when we ſet ourſelves to conſider our ſeveral ſucceſſive Thoughts and Actions, the Idea of the Duration grows upon us, and continues to increaſe, as the Attention of the Mind brings new Periods of Life into view.

Without Names we cannot make any Progreſs in Numbering.

VI. Hence it will be eaſy to conceive, how much the Mind is helped forwards in its Perception of Number, by that ready Comprehenſion of all the ſeveral Stages in a Progreſſion, which peculiarly belongs to Ideas of this Claſs. But this, as I have before intimated, we derive from the orderly Series and Connection of Names, inſomuch that where they ceaſe, the Computation of Numbers alſo ceaſes with them. We can have no Idea of any Sum, without a Knowledge of all the Terms that go before, according to the natural Order, in which they follow one another; ſo that he who cannot, in a regular way, count to ninety-nine, will never, while that Incapacity continues, be able to form the

the Idea of a hundred; becauſe the Chain that holds the Parts together, is to him wholly unſerviceable, nor can he repreſent to his Mind the ſeveral interjacent Combinations, without which it is impoſſible in this Caſe to arrive at a diſtinct Perception.

The great Advantages of Addreſs in claſſing our complex Conceptions.

VII. I HAVE inſiſted the more largely upon this, not only becauſe it is by Number that we meaſure all other Things, as Duration, Extenſion, Motion, *&c.* but alſo, becauſe it us lets into the moſt natural View of the Conduct and Procedure of the Underſtanding, and makes us ſenſible of the great Art and Addreſs that is neceſſary, in the claſſing of our very complex Conceptions. He that can ſo put together the component Parts of an Idea, as that they ſhall lie obvious to the Notice of the Mind, and preſent themſelves when Occaſion requires, in a juſt and orderly Connection, will not find it very difficult, to obtain clear and accurate Perceptions, in moſt of thoſe Subjects, about which our Thoughts are converſant. For the great Art of Knowledge lies, in managing with Skill the Capacity of the Intellect, and contriving ſuch Helps, as if they ſtrengthen not its natural Powers, may yet expoſe them to no unneceſſary Fatigue, by entangling and perplexing them with Conſiderations remote from the Buſineſs in Hand. When Ideas become very complex, and by the Multiplicity of their Parts, grow too unweildy to be dealt with in the Lump, we muſt caſe the View of the Mind, by taking them to Pieces, and ſetting before it the ſeveral Portions ſeparately, one after another. By this leiſurely Survey, we are enabled to take in the whole, and if we can draw it into ſuch an orderly Combination, as will naturally lead the Attention Step by Step, in any ſucceeding Conſideration of the ſame Idea, we ſhall ever have it at Command, and with a ſingle Glance of Thought be able to run over all its Parts. I have therefore explained here at ſome length, the Conduct of the Mind in Numbering; it ſeeming to me the beſt Model in this Kind, whether we conſider the many Advantages derived from ſuch an orderly Diſpoſition of our Ideas, or the great Art and Skill diſplayed in binding theſe Ideas together. This alſo is farther remarkable, in the Conſideration of Number, that from it chiefly we derive the Notion we have of *Infinity*; it being apparent, that in adding Number to Number, there is no End; the Poſſibility of doubling or increaſing our Stock in any Degree, remaining as obvious to the Underſtanding,

ſtanding, after a great and continued Run of Progreſſions, as when we firſt began the Computation.

The Conſideration of Number of great Uſe, in aſcertaining our Ideas of Space and Duration.

VIII. If we now turn our Thoughts towards *Space* and *Duration*, here too we ſhall find, that we very ſeldom arrive at clear and diſtinct Ideas of either, but when we introduce the Conſideration of Number. The more obvious and limited Portions, it is true, eaſily ſlide into the Mind in the natural Way of Perception; but it was the Neceſſity of comparing theſe together, that put us upon the Contrivance of certain ſtated Meaſures, by which preciſely to determine the Quantity in each. Thus Inches, Feet, Yards, Miles, *&c.* aſcertain our Ideas of Extenſion; as Minutes, Hours, Days, Years, *&c.* meaſure the Progreſs of Duration. The leſſer Parts, as lying moſt open to the Notice of the Underſtanding, and being more on a Level with its Powers, are retained with tolerable Exactneſs; and the larger Portions, when the Number of Repetitions of which they are made up, is known, are thereby alſo reduced into clear and determinate Conceptions. A Foot, and Yard, are Meaſures eaſily comprehended by the Mind; nor do we find any Difficulty in conceiving a Mile, when we conſider it as equal to a certain Number of Yards. If we are ſtill for increaſing the Standard, we may take the Semidiameter of the Earth, and ſuppoſing it equal to 8000 Miles, make Uſe of it as a Meaſure, by which to aſcertain the Diſtance of the Sun or fixed Stars. Juſt ſo it is in Duration; from Hours we riſe to Days, Months and Years; by theſe repeated and added together, we meaſure Time paſt, or can run forward at Pleaſure into Futurity, and that without any Confuſion or Perplexity.

Without it they are apt to degenerate into a confuſed and irregular Heap.

IX. It is however to Number alone, that we owe this Diſtinctneſs of Perception, inaſmuch as Space, and Time, conſidered apart, from the regular and orderly Repetition of Miles or Years, leave no determinate Impreſſions in the Mind, by which to know and diſtinguiſh their ſeveral Portions. Ideas of either, thus taken in at a Venture, are a confuſed and irregular Heap, eſpecially where we endeavour to enlarge and magnify our Views, and give full Play to the Powers of the Intellect. Something indeed the Mind conceives, vaſt and mighty, but nothing that is preciſe, accurate, and juſt. But when it begins to conſider theſe Ideas as made up of Parts, and fixing upon ſuch as are proportioned

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to its Reach, ſets itſelf to examine how often they are repeated to make up the whole, the Perceptions of the Underſtanding put on a new Form, and diſcover their exact Bounds and Limits.

Infinity an Object too mighty for the Survey of the human Mind.

X. AND thus as before in Number, ſo here in Extenſion and Duration, the Mind begins with ſimple and obvious Notices, advancing by Degrees to more enlarged and intricate Conceptions. A Day, or a Furlong, are of eaſy Apprehenſion to the Underſtanding, and by their Subdiviſions into ſtill leſſer Spaces, exhibit themſelves diſtinctly in all their Parts. With theſe variouſly repeated, we travel thro' Space and Time, ſo that being able to reduce all our Ideas of this Claſs, however mighty and enlarged, to the clear and determinate Perceptions of Number, we can conduct our Thoughts without Perplexity, and never find ourſelves puzzled, but when preſuming too much on our own Strength, we launch into Speculations, that ſtretch beyond the Powers of the human Intellect. Number may be compared to a Line, that ſetting out from Unity, runs on in a continual Increaſe of Length, without a Poſſibility of ever arriving at its ultimate Period. So far as we purſue it in our Thoughts, and trace its regular Advances, ſo far our Ideas are accurate and juſt. But when we let looſe our Underſtandings after a boundleſs Remainder, and would fathom the Depth of Infinity, we find ourſelves loſt amidſt the Greatneſs of our own Conceptions. Some Notions it is true we have, but ſuch as exceeding the Dimenſions of the Mind, lie involved in Darkneſs and Obſcurity; and being deſtitute of Order, Method, and Connection, afford no Foundation, whereon to build any juſt and accurate Concluſions.

Never repreſented in its full Dimenſions; but by an endleſs and ever growing Idea.

XI. AND this perhaps may be the Reaſon, why many modern Philoſophers, in their Diſcourſes concerning Infinity, have run into apparent Contradictions; becauſe encountering with an Object too large for the Survey of the Underſtanding, they found themſelves ſurrounded with inextricable Difficulties, which their ſcanty and defective Ideas were by no means able to diſſipate or remove. The Truth of it is, finite Ideas alone, are proportioned to a finite Underſtanding; and altho' we are not wholly without a Notion of the Infinity of Number, yet it is not ſuch a one, as comprehends and exhauſts its Object, or exhibits

hibits it to the Mind, in its full Size and Dimenſions. We only ſee the Idea, as capable of an endleſs Increaſe, but cannot by any Effort of Thought, take in the whole Proſpect; and indeed, it is properly that Part of it, which lies beyond the Reach of our Perception, and ſtill remains to be taken into the Account, to which we give the Name of Infinity.

Duration whether conſidered as paſt or to come boundleſs, whence our Idea of Eternity.

XII. THIS Idea of the Infinity of Number, imperfect as it may ſeem, is nevertheleſs that, by which the Mind aſcends to the Conception of *Eternity* and *Immenſity*. For when we conſider Duration, either as paſt, or to come, we find nothing to ſtop the Progreſs of our Thoughts, in the Repetition of Years, or Millions of Years: the farther we proceed, the more the Idea grows upon us, and when we have wearied ourſelves with vain Efforts, we muſt own at laſt, that we can no more arrive at the End of Duration, than at the End of Number. It is true, the ſeveral Generations of Men, riſe and diſappear in very quick Succeſſions; Earth itſelf may decay, and thoſe bright Luminaries that adorn the Firmament of Heaven, be extinguiſhed. But the Courſe of Time will not be thereby diſturbed; that flows uniform and invariable, nor is bounded by the Period of their Exiſtence. This double View of Duration, as having already revolved thro' numberleſs Ages, and yet ſtill advancing into Futurity in an endleſs Progreſſion, properly conſtitutes our Idea of *Eternity*. We ſpeak indeed of an Eternity paſt, and an Eternity to come, but both theſe are bounded at one Extreme; the former terminates in the preſent Moment, and therefore has an End; the latter ſets out from the ſame Period, and therefore has a Beginning; but taken together, they form a Line both ways infinitely extended, and which repreſents Eternity in its full Dimenſions.

The Idea of Immenſity derived from the Conſideration of Space ever growing on all Sides of us.

XIII. As in the Conſideration of Time, we fix upon the preſent Moment, regarding it as the middle Point, which divides the whole Line of Duration into two equal Parts; ſo in the Conſideration of Space, that particular Place in which we exiſt, is looked upon as a kind of Center to the whole Expanſion. From thence we let looſe our Thoughts on every Side; above, below, around, and find we can travel on, in the Repetition of Miles, and Millions of Miles, without ever arriving at the End of the Progreſſion. It is not difficult indeed, to carry our Con-

ceptions to the utmoſt Bounds of the Univerſe; at leaſt ſo far, as it falls within our Notice. But then the Imagination reſts not here, it ſees immeaſurable Spaces beyond, capable of receiving new Worlds, which it can purſue, as riſing one above another, in an endleſs Succeſſion. This Conſideration of Space, ever growing on all Sides of us, and yet never to be exhauſted, is that which gives us the Idea of *Immenſity*; which is in Fact nothing elſe, but the Infinity of Number, applied to certain Portions of Extenſion, as Miles, or Leagues, *&c.* and theſe conceived, as extended every Way around us, in infinite and innumerable right Lines.

Compound Ideas reſulting from the Union of Perceptions of different Kinds.

XIV. HITHERTO we have conſidered the Mind, as employed about one and the ſame Idea, enlarging and diverſifying it in various Forms. We have ſeen it riſing from the moſt ſimple and obvious Notices, to the Conception of Infinity itſelf; and taken a View of it, in all the different Stages of its Improvement. Let us now proceed to the more complicated Act of Compoſition, when the Mind brings ſeveral Ideas of different Kinds together, and voluntarily combines them into one complex Conception. Such for Inſtance is our Idea of a *Tune*, as comprehending a Variety of Notes, with many different Modulations of Sound. And here it is to be obſerved, that tho' the complex Idea may be excited in us, by hearing the Air itſelf ſtruck off, upon a proper Inſtrument; yet conſidered originally, it ſtill belongs to this Claſs of Perceptions, which are diſtinguiſhed as the arbitrary Collections of the Mind. It was the Muſician, or Compoſer, that combined the ſeveral Notes, and determined the Order in which they were to follow one another; nor had that particular Compoſition of Sounds, any real Union in Nature, before they were thus brought together in his Mind. Of the ſame Nature are moſt of our Ideas of human Actions; for tho' many of them come to our Notice, by ſeeing the Actions themſelves, or hearing them deſcribed by others; as *Diſtilling*, *Carving*, *Treaſon*, &c. yet it is plain, that they muſt have been projected and contrived in the Mind of Man, before they had a real Exiſtence.

How the Mind is determined in making theſe Combinations.

XV. IT is here that the Underſtanding has the greateſt Scope, and finds moſt Employment for its active Powers; nor indeed is it poſſible to ſet any Bounds to the Ideas of this Claſs; the Combinations already made being almoſt innumerable, and thoſe yet in the Power of the Mind affording an endleſs Diverſity. It may not however be amiſs to conſider,

how

how we conduct ourſelves amidſt ſo great a Variety, and by what Rules we proceed, in making thoſe Combinations, to which we have affixed particular Names, while others perhaps, no leſs obvious, are neglected. The Idea of Killing for Inſtance, joined to that of a Father, makes a diſtinct Species of Action, known by the Name of *Parricide*. It was doubtleſs as obvious, to diſtinguiſh between the killing of an old Man, and a Child, which yet we find is not done, both theſe Actions being comprehended under the general Name of *Murder*. By what Views therefore does the Mind regulate theſe its Combinations? Why is it determined to one Collection of Ideas rather than another? This cannot be well underſtood, without obſerving, that it is the End of Language to communicate our Thoughts one to another. Words are the Signs of our Ideas, and ſerve to expreſs the Conceptions of the Mind. Now it is apparent, that ſuch Conceptions, as are moſt apt to occur in the Commerce of Life, would be firſt diſtinguiſhed by particular Names; the frequent Occaſion Men have, of mentioning theſe among themſelves, rendering this abſolutely neceſſary. But as many of theſe Conceptions are Collections of different ſimple Ideas, hence we are inſenſibly led, to ſuch peculiar Combinations, as are moſt ſerviceable to Purpoſes of mutual Intercourſe and Communication.

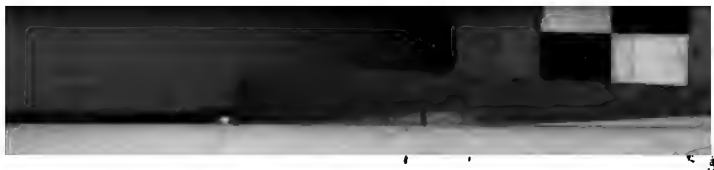
Ideas of human Actions often formed, before the Actions themſelves exiſt.

XVI. LET us ſuppoſe, in the firſt Beginnings of Society, a Company of Legiſlators met together, in order to conſult of proper Regulations, for the Government of the Community. If they are Men of Prudence and Foreſight, they will naturally obſerve many new Occurrences likely to ariſe, from this Coalition of Mankind, and their living together in Crowds. Perhaps the Age in which they live, has not produced an Inſtance of one Man's killing another; yet from the Knowledge of their own Frame, and their Power of doing Hurt, they conceive this as a poſſible Caſe, and are willing to provide againſt it. Thus all the Ideas that enter into the complex one of *Murder*, are brought together, and united into one Conception, before the Action itſelf really exiſts. It is not however thought neceſſary, to take into Conſideration the Age of the Perſon, the chief thing in View being to prevent the putting an End to another's Life unjuſtly, whether old or young; and therefore the Penalty equally affects both Caſes. But when they come to conſider the Relation, in which the Perſon killed may ſtand to the Murderer, here there appears a manifeſt Difference, as it adds to

the Crime when committed upon a Benefactor, and renders it particularly heinous in the Caſe of a Father. This laſt therefore, is made to conſtitute a diſtinct Species of Action, and has a peculiar Puniſhment allotted to it. Thus we ſee, how Men, according to their different Manner of Life, and the Relations they ſtand in to one another, are naturally led to form ſeveral Collections of ſimple Ideas, preferably to others, as foreſeeing they may have frequent Occaſion, to take Notice of ſuch preciſe Combinations. And becauſe it would be tedious in Converſation, every time theſe complex Notions occur, to enumerate all the Ideas of which they conſiſt; therefore, for the Sake of Eaſe and Diſpatch, they give them particular Names, and thereby render the Compoſitions fixed and permanent.

The Neceſſity of mutual Intercourſe, and Mens particular Aims in Life, a great Source of complex Ideas.

XVII. THAT it is in this Manner we come by our complex Ideas, which multiply upon us, according as the Exigencies of Society require, or our Purſuits, Method of Life, and different Aims, throw Occaſions in our Way, of combining ſuch and ſuch Perceptions together, might be eaſily made appear, by a ſhort View of the Combinations themſelves. Human Actions, as occurring moſt frequently, and affording large Matter of Converſation, Debate, and Enquiry among Men, have been very nicely modified, and diſtinguiſhed into Claſſes, according to the ſeveral Circumſtances moſt likely to attend them. In like manner, the Arts and Sciences, in proportion as they are cultivated, leading us into many compound Views of things, which otherwiſe would never offer themſelves to the Conſideration of the Mind; the complex Ideas of this Sort, with the Names by which they are expreſſed, are we find, the Work of ſuch particular Nations, where theſe Arts and Sciences have chiefly flouriſhed. The *Greeks* for Inſtance, excelled in Learning and polite Knowledge; hence many of the Terms belonging to Rhetorick, Poetry, Philoſophy, Phyſick, *&c.* come originally from their Language. Modern Fortification has received its greateſt Improvements among the *French*; and accordingly, the Ideas and Terms of the Art, are moſtly derived from Writers of that Nation. In *Italy*; Architecture, Muſick, and Painting, have been the great Exerciſe of the Men of Genius: it is therefore among them, that we find the ſeveral complex Notions, belonging to theſe Parts of Study, as well as the Names by which they are expreſſed; nor can we diſcourſe accurately and minutely of the above-mentioned Arts, without having Recourſe to the Language



of that Climate. And if we deſcend into the parti-Callings and Profeſſions of Men, they have all their ir Collections of Ideas, diſtinguiſhed by their ſeveral s, and hardly known, but to ſuch as are converſant it manner of Life. Thus *Calcination*, *Cohobation*, *Fil-*, &c. are Words ſtanding for complex Ideas, fre-y framed in the Minds of Chymiſts, and therefore fa-to Men of that Employment. Yet as theſe, and ſuch ombinations, ſeldom occur in common Life, the Gene- of Mankind we ſee, are in a great meaſure unacquaint-th them.

Hence different Sets of them prevail in different Countries, and Words in one Language have none to anſwer them in another.

III. I might purſue theſe Speculations r, and ſhew how the ſeveral Faſhions, ms, and Manners of one Nation, leading to form many complex Notions, which not ſo naturally in the way of another; nt Sets of Ideas prevail in different Coun- and of courſe have Names appropriated em in one Language, to which there are Words that anſwer in another. The Pro- and Forms of our Courts of Juſtice, have introduced Terms into the *Engliſh* Law, which ſtand for Col-ns of Ideas, framed among no other People. Nor would poſſible to render theſe Terms, by any ſingle Words ther Language; becauſe where the Ideas themſelves pre-ot, there are no Names provided to expreſs them. In aſe therefore, it becomes neceſſary to uſe Circumlocu- and enumerate the ſeveral Ideas comprehended in the tion, if we would ſo expreſs ourſelves, as to be un-od in the Language of other Nations. Nay, even a-the ſame People, the Change of Cuſtoms and Opinions ntly brings new Sets of Ideas, which of courſe muſt be uiſhed by particular Names, while at the ſame time, otions of former Ages grow into Diſuſe, and the s anſwering them are either wholly laid aſide, or em-in a Signification different from what they had before.

This too the Cauſe that Languages are in a perpetual Flux.

4. Thus Languages are in a perpetual and by degrees vary ſo much from their al Frame, as to become unintelligible, even Deſcendents of thoſe who ſpeak them. run back into the Ages of Chivalry in *Eng-* when Tilts and Tournaments were in Faſhion; how complex Ideas, peculiar to that Mode of Life, ſhall we amiliar among the Men of thoſe Times, which are now known or attended to? On the contrary, the Improve-

ments in Arts and Sciences, that have ſince taken place, have led us into innumerable Views of Things, to which our Forefathers were perfect Strangers. But I ſhall not puſh theſe Reflections any farther, believing that what has been ſaid, will be ſufficient to ſhew, the Original and Progreſs of our compound Ideas, and how the Mind is directed in the Choice of the Combinations it makes. We therefore proceed to the Conſideration of abſtract Ideas, which make the Subject of the following Section.

SECT. II.

Of Abſtract or Univerſal Ideas.

General Ideas formed by the Abſtraction of the Mind.

I. HAVING diſpatched what was neceſſary to be ſaid, concerning our compound Ideas, conſidered merely as they are Combinations of the Underſtanding, it is now time to explain how we come by our general Notions, which ſerve to repreſent to us a Multitude of Individuals, and are the Standards by which we rank Things into Sorts. And this, as we have before intimated, is done by the Abſtraction of the Mind; which Act may be extended to all our Ideas, whether ſimple, compound, or of Subſtances. If for Inſtance, we fix our Attention on any particular Colour, as Scarlet, we can leave out the Conſideration of all preſent Circumſtances, as the Subject in which it inheres, the Time and Place of ſeeing it, *&c.* and retaining only the Impreſſion itſelf, make it a Repreſentative of that Quality or Appearance, wherever we chance to meet with it. It is thus that abſtract and univerſal Ideas are framed; for the Mind regarding only the ſcarlet Colour, which one Day it obſerves perhaps in a Piece of Cloth, another in a Picture, and a third in the Rainbow; the Appearance is conceived to be the ſame in all theſe Objects, and therefore is called by the ſame Name.

All the Perceptions of the Underſtanding particular.

II. BUT to enter a little more cloſely into this Matter, and ſhew that theſe our general Conceptions are the mere Creatures of the Underſtanding; it may not be amiſs to take notice, that all our Perceptions of Things, whether we derive them

them from Senſation or Reflection, are of their own Nature particular, and repreſent to us ſingle determinate Objects. When we ſee a Horſe, for Inſtance, in the Fields, our Idea is that of an Individual. If we hear a Sound, it is ſomething particular, and different from what we hear at any other time. Every Perception of the Mind is diſtinct from every other Perception; nay, and every Idea brought into view by the Imagination, as when we frame the Image of a Lion ſtanding before us, is ſtill ſingular, and repreſents a ſingle Object.

The Idea of the Species repreſents what is common to different Individuals.

III. BUT when we come to take a View of theſe ſeveral Particulars, we readily obſerve among ſome of them a Reſemblance, and framing to ourſelves an Idea of thoſe Things, in which any of them are found to agree, we thereby get a general Notion, applicable to many Individuals. Thus *Horſes* are found to reſemble one another, in Shape, Voice, and Structure of Parts. The Idea which takes in only the Particulars of this Reſemblance, excluding what is peculiar to each ſingle Animal, becomes of courſe common to all Creatures of that Kind, and is therefore the Repreſentative of a whole Claſs of Beings. Accordingly the Name of that general Idea, is given to every Animal, in which that Shape, Voice, and Structure is found; for the Word *Horſe*, implying only theſe Particulars, muſt belong to all Creatures wherein they exiſt. This is the firſt Step or Gradation in the forming of abſtract Notions, when the Mind confines itſelf to the Conſideration of Individuals, and frames an Idea that comprehends ſuch only under it. The Rank or Claſs of Things anſwering to this Idea, is called *Species* in the Language of the Schools. So a Horſe is a certain *Species* of Animals, an Oak is a *Species* of Trees, and a Square is a *Species* of four-ſided Figures.

The Idea of the Genus repreſents what is common to ſeveral Species.

IV. WHEN we have thus learnt to rank Individuals into Sorts and Claſſes according to the Reſemblance found among them, the Mind proceeds next to conſider the Species themſelves, and often in theſe too obſerves a certain Likeneſs. Whereupon throwing out all thoſe Particulars, wherein the ſeveral Species are found to diſagree, and retaining only ſuch as are common to them all, we thereby frame a ſtill more general Idea, comprehending under it a Variety of different Species. Thus a Sparrow, a Hawk, an Eagle, *&c.* are diſtinct Species of Birds, which have each their peculiar Shape and Make. They nevertheleſs reſemble

one another, in being covered with Feathers, and provided with Wings, that bear them through the Air. Out of theſe Particulars we form a new Idea, including all the common Properties of the feathered Kind, and appropriating to it the Name *Bird*, mark by that Word, another Claſs of Things, of a higher Order than any of the former. This ſuperior Diviſion, which extends to ſeveral Species at once, is called in the Schools the *Genus*, and is the ſecond Step the Mind takes in advancing to univerſal Notions.

The Mind may advance by manifold Gradations, in riſing from Particulars to Generals.

V. AND thus have I given a ſhort, but I hope intelligible Account, of the Buſineſs of *Genera* and *Species*, about which ſo much has been ſaid in the Writings of Logicians. *Species* in Strictneſs and Propriety of Speech, is ſuch a Rank or Claſs of Things, as comprehends under it only Individuals; *Genus* advances ſtill higher, and takes in a Variety of diſtinct Species. It is however to be obſerved, that the Mind, in riſing from Particulars to Generals, does not confine itſelf to one or two Gradations, but may carry its Views through the whole Extent of Things, until at length it arrive at an Idea, embracing the univerſal Compaſs of Nature. For when we have ranked Things into Sorts, and reduced theſe again to the higher Order or *Genus*, theſe *Genera* are ſtill found to reſemble one another in ſome Particulars; which being collected into one Idea, form a new and more comprehenſive Diviſion of Things. Thus *Bird* is a *Genus*, embracing all the Varieties of the feathered Kind. *Fiſh* implies the ſeveral Species of living Creatures which inhabit the Waters. *Quadruped* and *Inſect* are alſo univerſal Ideas, that take in many inferior Diſtributions and Claſſes. Yet all theſe different Orders of Being, have this in common; that they are provided with organical Bodies, fitted for the Purpoſes of Life and ſpontaneous Motion. An Idea therefore comprehending only theſe laſt Particulars, will equally belong to all the Diviſions before enumerated, and the Word *Animal*, by which it is expreſſed, becomes a general Name for the ſeveral Creatures indued with Life, Senſe, and ſpontaneous Motion. If we are for carrying our Views ſtill farther, and framing a yet more univerſal Notion, we can caſt our Eyes upon both the animate and inanimate Parts of Nature; wherein we find this mutual Correſpondence, that they exiſt and continue in Being. This laſt Idea therefore of *Being* in general, comprehends under it all the Varieties of Things, and may be univerſally applied to whatever has either Life or Exiſtence; ſo that in reſpect of the preſent Frame

Frame of Nature, it is the higheſt and moſt univerſal Idea we have.

Whence many intermediate Steps between the higheſt Genus and loweſt Species.

VI. IN this Series of Notions, riſing one above another in the Degree of Univerſality; that Diviſion, which comprehends under it ſeveral Genera, is called in the Schools the *higher Genus*; which Denomination continues, until we arrive at the laſt Advance of the Underſtanding, when being come to the moſt general of all Ideas, that admits not of a ſuperior, it is diſtinguiſhed by the Name of the *Genus generaliſſimum*. In like manner, the ſeveral *Genera* comprehended under a higher *Genus*, are in reſpect of it conſidered as *Species*; and as theſe laſt too have Species under them, the inferior Diviſions, are for Diſtinction's ſake termed *lower Species*. Thus the Progreſſion continues, and when we come to the loweſt Subdiviſion of all, comprehending only Individuals, which as I have before intimated, conſtitutes the proper Species, this the Schools denominate the *Species ſpecialiſſima*. All that lie between it and the higheſt Diſtribution of Things, are the intermediate Genera and Species, which are termed each in their turn, *Genus generalius*, or *Species ſpecialior*, according as we conſider them in the aſcending or deſcending Scale of our Ideas; or, to ſpeak in the Language of Logicians, according to their Aſcent or Deſcent *in Linea prædicamentali*. I ſhould not have entered ſo far into theſe verbal Diſquiſitions, had not the Terms here explained, been ſuch as frequently occur in the Writings of Philoſophers; inſomuch that without ſome Knowledge of them, we muſt often be at a Loſs, in the Proſecution of theſe Studies. Beſides, it is both curious and uſeful, to ſee the gradual Progreſs of the Mind, in its Advances from particular to general Conceptions; to obſerve it ranging its Ideas into Claſſes, and eſtabliſhing a juſt and regular Subordination in its Views and Notices of Things. This is the ſhorteſt Way to Knowledge, and affords the beſt Means of preſerving the Order and due Connection of our Thoughts, ſo as to make them ſubſervient to the Increaſe of Science. For when we ſee how Things comprehend, or are comprehended in one another, we are able to diſcover the mutual Dependence of all the ſeveral Branches of Knowledge, which leads us into the true and natural Method, of conducting our Underſtandings in the Search of Truth.

General Ideas the Creatures of the Underſtanding.

VII. FROM what has been ſaid it is evident, that general Ideas are the Creatures and Inventions of the Underſtanding. Nature it is true, in the Production of Things, makes many

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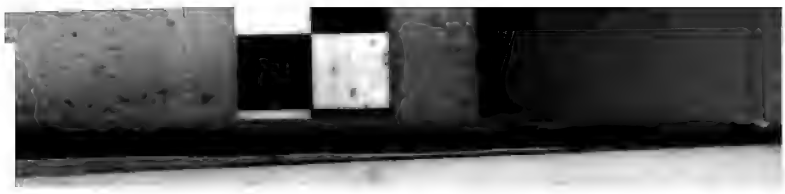

of them alike; but it is the Mind alone, that collects the Particulars in which they agree, into one Idea, and sets it up as a Representative of many Individuals. And now I think we may venture upon that much-agitated Question, Where do the Genera and Species of Things exist? To which I answer, in the Mind. *Universality* belongs not to Things themselves, it being apparent, that they are all particular in their Existence. However, as they often have many Properties in common, the Understanding by uniting these into one Conception, obtains a general Idea, under which it ranks all the several Objects wherein all these Properties are found. So far indeed we must allow, that the particular Combination of Properties, which constitutes the Genus and Species, exists in all the Individuals referred to that Genus or Species; but then it is in Conjunction with other Properties, by which these Individuals are distinguished from one another. Thus the Collection of simple Ideas, signified by the Word *Bird*, is to be found for instance in a *Hawk*, or any other single Animal, to which we apply that general Name; but the Notion itself, abstracted from all the Particulars to which it belongs, has evidently no Existence out of the Understanding. There is not a Being in Nature that can be called a *Bird* in general, or that does not necessarily imply, in the very Conception of it, several simple Ideas, besides those marked by that Word. For the Name in this Case signifies no more, than an Animal covered with Feathers, and provided with Wings, without Regard either to Shape, Bulk, or the particular Time and Place of its Existence. These last Considerations however, are inseparable from the Reality of Things, and therefore must be added to the general Idea, before we can conceive any thing conformable to it actually brought into Being.

Considered apart they exist only in the Mind, but in Conjunction with other Ideas in the Individuals comprehended under them.

VIII. HENCE we see at once, what sort of an Existence general Natures have. Considered apart, and by themselves, they are wholly the Workmanship of the Understanding, and derive their Being and Reality from it; but viewed in Conjunction with other Ideas, that co-exist with them in the several Objects of Nature, they are to be found in the Individuals to which they refer; and therefore according to this way of Conception, may be said to have an Existence in them. Thus, so long as the Ideas answering to the Words *Man* or *Tree*, continue general and undetermined, they have no real Objects answering them in Nature;

Nature; nor can the Collections of ſimple Ideas, marked by theſe Names, while others are ſuppoſed excluded, exiſt any where out of the Underſtanding. Nevertheleſs, as all the ſimple Ideas included in the general Notion of *Man*, are to be found in every particular *Man*; and all thoſe implied in the Notion of a *Tree*, in every particular *Tree*; hence the general Nature of *Man*, exiſts in every individual *Man*, as does the general Nature of a *Tree*, in every individual *Tree*.

Difference of Ideas conſidered as compound and as univerſal.

IX. ONE Thing ſtill remains to be obſerved, with regard to theſe our general Ideas; that though many of them are evidently Combinations of different ſimple Ideas, and according to that Way of conſidering them, are included in the firſt Diviſion of our complex Conceptions, thoſe namely framed by the Compoſition of the Mind; yet we are carefully to diſtinguiſh between an Idea as it is compound, and as it is univerſal. In the firſt Caſe, the Mind chiefly conſiders the ſeveral Ideas that are combined together; or in other Words, all the Attributes, Qualities, or Parts, that are contained in any Idea. Thus the Idea of a *Bird*, includes Life, Senſe, ſpontaneous Motion, a Covering of Feathers, Wings, *&c.* none of which can be left out, without deſtroying the very Nature of the Idea, and making it ſomething quite different from what it was before. This Way of conſidering Things, according to the Number of their Parts and Properties, is called by Logicians the *Comprehenſion* of an Idea. But the *Univerſality* of our Notions implies quite another Turn of Thinking, inaſmuch as it fixes the Regard of the Mind, upon the Subjects to which our Ideas extend, or the Individuals and Species comprehended under them. In this Senſe the Idea anſwering to the Word *Bird*, takes in the ſeveral Species of the feathered Creation, the *Hawk*, the *Eagle*, *Sparrow*, *Lark*, and innumerable others, to all which it may with equal Propriety be applied. And here it is remarkable, that the Idea loſes nothing of its Force or *Comprehenſion*, by being reſtricted to a particular Kind. When I ſay the *Bird of Jove*, though in this Caſe the Idea is reſtrained to the *Eagle* alone, it ſtill remains as diſtinct, and includes as many ſimple Ideas in its Compoſition, as when before it was extended to all the different Tribes of feathered Animals.

The Comprehenſion and Extenſion of our Ideas.

X. WE ſee therefore that our compound Ideas, may continue the ſame in reſpect of their Attributes, or the Number of Parts, and yet vary conſiderably in the Degree of Univerſality. The general Idea of *Man* is the ſame, whether applied

to

to the whole human Race, or thoſe of any particular Nation. When I affirm for inſtance of Mankind in general, that their Knowledge falls ſhort of Perfection, and afterwards make the like Obſervation of the Men of the preſent Age; in both Caſes, the Word *Man* ſtands for one and the ſame Collection of ſimple Ideas; but in reſpect of the Individuals to which it is applied, there is a great and manifeſt Difference. That is, the Term *Man*, denotes one invariable compound Idea; which notwithſtanding, conſidered as a general Notion, may be contracted or enlarged at pleaſure. And as in the former Caſe, the ſeveral Parts of the compound Idea, is called its *Comprehenſion*; ſo in the latter, the Individuals to which the univerſal Idea is applied, is called its *Extenſion*. I might add many more Obſervations on this Subject, but chuſe rather to ſtop here, having ſaid enough to explain the Difference between compound and abſtract Ideas, and ſhew the Reaſon of my ranging them under diſtinct Heads.

SECT. III.

Of our Ideas of Relations.

Ideas of Relations exceeding numerous.

I. COME now to the third and laſt Diviſion of thoſe Ideas, which I conſider as the Creatures and Workmanſhip of the Underſtanding; ſuch namely as ariſe, from the comparing of Things one with another. For the Mind in its Views, is not tied to ſingle Objects; but can examine their References and Reſpects, in regard to others, brought under Conſideration at the ſame time. And when it does ſo, and thence derives new Notices of Things, the Ideas thus got are called Relations, and make I am apt to think the largeſt Claſs of all our Perceptions. For every ſingle Object will admit of almoſt innumerable Compariſons with others, and in this Senſe may become a very plentiful Source of Ideas to the Underſtanding. Thus if we compare one thing with another in reſpect of *Bulk*, we get the Ideas of *greater*, *leſs*, or *Equality*; if in reſpect of *Time*, of *elder* and *younger*; and ſo for other Relations, which we can purſue at pleaſure, almoſt without End; whence it is eaſy to conceive, how very extenſive this Tribe of our Perceptions muſt be.

II. I

Men chiefly determined to particular Compariſons by the Wants and Exigencies of Life.

II. I SHALL not pretend to trace out theſe Ideas particularly, nor indeed ſo much as to enumerate their ſeveral Diviſions; it being enough to obſerve, that here, as well as in the other kinds of our complex Ideas, we bound ourſelves for the moſt part to ſuch Compariſons, as the Exigencies of Society, the Wants of Life, and the different Profeſſions of Men, render neceſſary; and are more or leſs accurate in tracing out the Relations of Things, according to the Degree of Importance they appear to have in theſe Reſpects. The Relations of Men one to another, ariſing either from the Ties of Blood, their ſeveral Ranks and Places in the Community, or a mutual Intercourſe of good Offices, being of great Weight and Concern in the Commerce of Life, have in a particular Manner engaged our Attention, and are therefore very minutely deſcribed. For the ſame Reaſon, Men have found it neceſſary, to determine as exactly as poſſible, the various Dependence of Things, as their Happineſs is nearly connected with this Knowledge. When we conſider Objects merely *in reſpect* of Exiſtence, as either giving or receiving it, we come by the Ideas of *Cauſe* and *Effect*: Nor need I mention, how much the Welfare of Mankind depends, upon an extenſive View of Things, as they ſtand connected in this Relation; it being evident, that the ſeveral Schemes and Purpoſes of Life, are all conducted upon a previous Suppoſition, that certain known Cauſes, will have their uſual regular Effects, and ſuch and ſuch Actions, be attended with ſuch and ſuch Conſequences.

Relations of Creator and Creature, &c.

III. BUT there are other Relations of this kind, beſides thoſe that merely regard Exiſtence; as when we alſo take into the Account, the additional Gifts, of a Capacity for Happineſs, and the Means of attaining it; which conſtitutes the Relation of *Creator* and *Creature*, in the more ſolemn Acceptation of theſe Words. Again, when we conſider the great Author of our Being, not only as the Creator of the Univerſe, but alſo as preſerving and holding it together, and preſiding over the preſent Frame of Things with uncontrouled Dominion; he then appears under the Notion of a *moral Governor*, to whom we are accountable for our Actions, and the Uſe we make of thoſe Powers and Faculties we derive from him. Now as it is of the higheſt Conſequence for Men, not to be unacquainted with theſe, and ſuch like Relations; hence we find, that the wiſeſt Nations, and ſuch as beſt underſtood the true Application

Application of the Powers of the Mind, have always made it their chief Study, to regulate and aſcertain theſe Ideas, and trace them in all their Conſequences. And thus we may in ſome meaſure perceive, how the Mind proceeds in comparing its Ideas together, and by what Views it is chiefly governed, in framing the complex Notions of this Claſs, by which it repreſents the various Habitudes of Things. I ſhall only add upon this Subject, theſe two Obſervations.

Our Ideas of Relations very clear and diſtinct.

IV. FIRST that our Ideas of Relations are for the moſt part very clear and diſtinct. For the comparing of things together, being a voluntary Act of the Mind, we cannot but ſuppoſe, that it muſt be acquainted with its own Views in the Compariſon; and of courſe, have a clear Conception of the Foundation of that Relation, it ſets itſelf to enquire into. Thus the Relation of Cauſe and Effect, implying only that one thing produces, or is produced by another, which Notions are always diſtinctly ſettled in the Underſtanding, before it goes about to make the Compariſon; it is evident, that the Idea repreſenting this mutual Reſpect of Objects, will be no leſs clear, than are the Notions themſelves, upon which the Relation is founded. And what is ſtill more remarkable of the Ideas of this Claſs; they ceaſe not to be diſtinct, even where the Subjects compared are but very imperfectly known. For I can well enough conceive that one thing has produced another, and that therefore they ſtand related as Cauſe and Effect, though my Ideas of the things themſelves may perhaps be very obſcure, and come far ſhort of repreſenting their real Nature and Properties. I doubt not but it will be readily owned, that our Idea of the Univerſe, conſidered as comprehending the whole Frame of created Things, is very inadequate; and I think it is ſtill more apparent, that our Notion of the Supreme Being, comes not up to the Excellence and Perfection of his Nature. Yet we very well underſtand what is meant, by calling God the Author of the World; and though we comprehend not the Manner of his producing it, find no Difficulty in framing the Ideas, the relative Words *Creator* and *Creature* ſtand for

Ideas of Relations among the moſt important Conceptions of the Mind.

V. I HAVE yet another Obſervation to make upon this Subject; and it is, that our Ideas of Relations, are among the moſt important Conceptions of the Underſtanding, and afford the largeſt Field, for the Exerciſe and Improvement of human Knowledge. Moſt of our Enquiries

regard

regard relative Ideas, and are ſet on foot with a View to inveſtigate the mutual Habitudes of Things. The Mathematician has taken Quantity for his Province, and teaches how to compare Magnitudes of different Figures and Dimenſions, in order to judge with Certainty of their relative Properties. The Philoſopher attaches himſelf to the Chain of Cauſes and Effects, and endeavours to trace out the various Dependence of Things conſidered in this Light. In fine, whither do all our Reſearches tend, but by means of certain known Properties and Relations, to find out others that ſtand ſome how connected with them? As for the Importance of theſe Conceptions, no one can call that in Queſtion, who reflects; that from our Relations to our Creator and one another, ariſe all the Duties of Morality and Religion; and that the Correſpondence of the ſeveral Objects of Nature, to the Organs of the Body, and Faculties of the Mind, is that by which alone we can judge, of what will procure us Happineſs or Miſery. Whence it is evident, that without an exact Knowledge of theſe Relations, we muſt wander on in Life with great Uncertainty, and may often plunge into Calamities and Misfortunes, by thoſe very Purſuits, from which we expected nothing but Joy and Pleaſure.

Recapitulation.

VI. THUS have I gone through the ſeveral Diviſions of our Ideas, which I have endeavoured to repreſent in ſuch a Manner, as their vaſt Extent may moſt eaſily appear, and the Conduct of the Mind in framing them be diſtinctly apprehended. I might eaſily run into other Diſtinctions, by conſidering them as *clear* or *obſcure*, *adequate* or *inadequate*, *true* or *falſe*. But the Limits of this Tract will not allow my entering more fully into the Subject, and I think it the leſs needful, becauſe the very Names are almoſt ſufficient, to convey a Notion of theſe ſeveral Kinds of Ideas into the Mind. But as the Diviſion explained above ſeems to be of great Importance, towards ſettling in the Underſtanding a juſt View of the Progreſs of human Knowledge, and the Steps by which it advances from one Degree of Improvement to another, I ſhall here run over it again in as few Words as poſſible, that the whole Proceſs may be ſeen at once. Our Ideas are all derived into the Underſtanding, either by Senſation, or Reflection. This however is obſervable, that one and the ſame Object often excites a Variety of Perceptions at once, which are nevertheleſs readily diſtinguiſhed by the Mind, and appear each under a Form peculiar to itſelf. Theſe conſtitute our primary and original Notices, and are eaſily known from all

all others, inaſmuch as they are entirely void of Plurality, and cannot be divided into two or more different Ideas. They are alſo the Materials out of which the others are formed, and are therefore by Way of Diſtinction called ſimple Ideas. But the Mind, though it has no Power over theſe, either to faſhion or deſtroy them, can yet combine them in an infinite Number of Ways; and from their various Combinations, reſult all our complex Ideas, which are of two principal Kinds. Firſt ſuch as are derived from without, and repreſent thoſe Combinations of ſimple Ideas, that have a real Exiſtence in Nature. Of this Sort are all our Ideas of Subſtances. Secondly the Conceptions formed by the Mind itſelf, arbitrarily uniting and putting together its Ideas. And as this makes by far the largeſt Claſs, and comprehends all thoſe Ideas, which may be properly termed our own, as being the real Workmanſhip of the Underſtanding; ſo they fall very naturally under three diſtinct Heads. For either the Mind combines ſeveral ſimple Ideas together, in order to form them into one Conception, in which the Number and Quality of the Ideas united, are principally conſider'd; and thus it is we come by all our *compound* Notions: or it fixes upon any of its Ideas, whether ſimple, compound, or of Subſtances, and leaving out the Circumſtances of Time, Place, real Exiſtence, and whatever renders it particular, conſiders the Appearance alone, and makes that a Repreſentative of all of the Kind; whence our *abſtract* and *univerſal* Ideas are derived: or laſtly, it compares things one with another, examines their mutual Connections, and thereby furniſhes itſelf with a new Set of Notions, known by the Name of *Relations*; which as has been already remarked, make by no means the leaſt important Claſs of our Perceptions. This Diviſion of our Ideas, as it ſeems to be the moſt natural, and truly to repreſent the Manner in which they are introduced into the Mind, ſo I believe it will be found to comprehend them in all their Varieties. I ſhall therefore now proceed to offer ſome Obſervations upon Language, as being the great Inſtrument, by which we are enabled to make our Ideas and Perceptions known to others.

CHAP.

CHAP. V.

Of Words conſidered as the Signs of our Ideas.

Words furniſh the Means of recording our own Thoughts

I. WE have ſeen how the Mind comes to be firſt furniſhed with Ideas, and by what Methods it contrives to diverſify and enlarge its Stock; let us now conſider the Means of making known our Thoughts to others, that we may not only underſtand how Knowledge is acquired, but alſo in what Manner it may be communicated with the greateſt Certainty and Advantage. For our Ideas, though manifold and various, are nevertheleſs all within our own Breaſts, inviſible to others, nor can of themſelves be made appear. But God deſigning us for Society, and to have Fellowſhip with thoſe of our Kind, has provided us with Organs fitted to frame articulate Sounds, and given us alſo a Capacity of uſing thoſe Sounds, as Signs of internal Conceptions. Hence ſpring Words and Language; for having once pitched upon any Sound, to ſtand as the Mark of an Idea in the Mind, Cuſtom by Degrees eſtabliſhes ſuch a Connection between them, that the Appearance of the Idea in the Underſtanding, always brings to our Remembrance the Sound or Name by which it is expreſſed; as in like manner the hearing of the Sound, never fails to excite the Idea for which it is made to ſtand. And thus it is eaſy to conceive, how a Man may record his own Thoughts, and bring them again into View in any ſucceeding Period of Life. For this Connection being once ſettled, as the ſame Sounds will always ſerve to excite the ſame Ideas; if he can but contrive to regiſter his Words in the Order and Diſpoſition, in which the preſent Train of his Thoughts preſents them to his Imagination; it is evident he will be able to recall theſe Thoughts at Pleaſure, and that too in the very Manner of their firſt Appearance. Accordingly we find, that the Inventions of Writing and Printing, by enabling us to fix and perpetuate ſuch periſhable things as Sounds, have alſo furniſhed us with the Means of giving a Kind of Permanency to the Tranſactions of the Mind, inſomuch that they may be in the ſame Manner ſubjected to our Review, as any other abiding Objects of Nature.

And of the mutual Communication of Knowledge from one Man to another.

II. BUT beſides the Ability of recording our own Thoughts, there is this farther Advantage in the Uſe of external Signs, that they enable us to communicate our Sentiments to others, and alſo receive Information of what paſſes in their Breaſts. For any Number of Men, having agreed to eſtabliſh the ſame Sounds as Signs of the ſame Ideas, it is apparent that the Repetition of theſe Sounds muſt excite the like Perceptions in each, and create a perfect Correſpondence of Thoughts. When for inſtance, any Train of Ideas, ſucceed one another in my Mind, if the Names by which I am wont to expreſs them, have been annexed by thoſe with whom I converſe, to the very ſame Set of Ideas, nothing is more evident, than that by repeating thoſe Names according to the Tenor of my preſent Conceptions, I ſhall raiſe in their Minds the ſame Courſe of Thought as has taken Poſſeſſion of my own. Hence, by barely attending to what paſſes within themſeleves, they will alſo become acquainted with the Ideas in my Underſtanding, and have them in a manner laid before their View. So that we here clearly perceive, how a Man may communicate his Sentiments, Knowledge, and Diſcoveries to others, if the Language in which he converſes, be extenſive enough to mark all the Ideas and Tranſactions of his Mind. But as this is not always the Caſe, and Men are often obliged to invent Terms of their own, to expreſs new Views and Conceptions of Things; it may be aſked, how in theſe Circumſtances we can become acquainted with the Thoughts of another, when he makes uſe of Words, to which we have never annexed any Ideas, and that of courſe can raiſe no Perceptions in our Minds. Now in order to unveil this Myſtery, and give ſome little Inſight into the Foundation, Growth, and Improvement of Language, the following Obſervations will, I am apt to think, be found of conſiderable Moment.

Simple Ideas cannot be communicated to the Mind by Words or Definitions.

III. FIRST, that no Word can be to any Man the Sign of an Idea, till that Idea comes to have a real Exiſtence in his Mind. For Names being only ſo far intelligible, as they denote known internal Conceptions, where they have none ſuch to anſwer them, there they are plainly Sounds without Signification, and of courſe convey no Inſtruction or Knowledge. But no ſooner are the Ideas to which they belong raiſed in the Underſtanding, than finding it eaſy to connect them with the eſtabliſhed Names,

we

we can join in any Agreement of this Kind made by others, and thereby enjoy the Benefit of their Diſcoveries. The firſt thing therefore to be conſider'd is, how theſe Ideas may be conveyed into the Mind; that being there, we may learn to connect them with their appropriated Sounds, and ſo become capable of underſtanding others, when they make uſe of theſe Sounds in laying open and communicating their Thoughts. Now to comprehend this diſtinctly it will be neceſſary to call to mind, the before-mentioned Diviſion of our Ideas into ſimple and complex. And firſt as for our ſimple Ideas, it has been already obſerved, that they can find no Admiſſion into the Mind, but by the two original Fountains of Knowledge, Senſation and Reflection. If therefore any of theſe have as yet no Being in the Underſtanding, it is impoſſible by Words or a Deſcription to excite them there. A Man who had never felt the Impreſſion of *Heat*, could not be brought to comprehend that Senſation, by any thing we might ſay to explain it. If we would really produce the Idea in him, it muſt be by applying the proper Object to his Senſes, and bringing him within the Influence of a hot Body. When this is done, and Experience has taught him the Perception to which Men have annexed the Name *Heat*, it then becomes to him the Sign of that Idea, and he thenceforth underſtands the Meaning of a Term, which before, all the Words in the World would not have been ſufficient to convey into his Mind. The Caſe is the ſame in reſpect of Light and Colours. A Man born blind, and thereby deprived of the only Conveyance for the Ideas of this Claſs, can never be brought to underſtand the Names by which they are expreſſed. The Reaſon is plain: they ſtand for Ideas that have no Exiſtence in his Mind; and as the Organ appropriated to their Reception is wanting, all other Contrivances are vain, nor can they by any Force of Deſcription be raiſed in his Imagination. But it is quite otherwiſe in our complex Notions. For theſe being no more than certain Combinations of ſimple Ideas, put together in various Forms; if the original Ideas out of which the Collections are made have already got Admiſſion into the Underſtanding, and the Names ſerving to expreſs them are known; it will be eaſy, by enumerating the ſeveral Ideas concerned in the Compoſition, and marking the Order and Manner in which they are united, to raiſe any complex Conception in the Mind. Thus the Idea anſwering to the Word *Rainbow*, may be readily excited in the Imagination of another, who has never ſeen the Appearance itſelf, by barely deſcribing the Figure, Largeneſs,

Poſition, and Order of Colours; if we ſuppoſe theſe ſeveral ſimple Ideas, with their Names, ſufficiently known to him.

The Names of complex Ideas definable, thoſe of ſimple Ideas not.

IV. AND this naturally leads me to a ſecond Obſervation upon this Subject, namely: that Words ſtanding for complex Ideas are all definable, but thoſe by which we denote ſimple Ideas are not. For the Perceptions of this latter Claſs having no other Entrance into the Mind, than by Senſation or Reflection; can only be got by Experience, from the ſeveral Objects of Nature, proper to produce thoſe Perceptions in us. Words indeed may very well ſerve to remind us of them, if they have already found Admiſſion into the Underſtanding, and their Connection with the eſtabliſhed Names is known; but they can never give them their original Being and Exiſtence there. And hence it is, that when any one aſks the Meaning of a Word denoting a ſimple Idea, we pretend not to explain it to him by a Definition, well knowing that to be impoſſible; but ſuppoſing him already acquainted with the Idea, and only ignorant of the Name by which it is called, we either mention it to him by ſome other Name, with which we preſume he knows its Connection, or appeal to the Object where the Idea itſelf is found. Thus was any one to aſk the Meaning of the Word *White*, we ſhould tell him it ſtood for the ſame Idea as *Albus* in *Latin*, or *Blanc* in *French*; or if we thought him a Stranger to theſe Languages, might appeal to an Object producing the Idea, by ſaying it denoted the Colour we obſerve in *Snow* or *Milk*. But this is by no means a Definition of the Word, exciting a new Idea in his Underſtanding; but merely a Contrivance to remind him of a known Idea, and teach him its Connection with the eſtabliſhed Name. For if the Ideas after which he enquires, has never yet been raiſed in his Mind; as ſuppoſe one who had ſeen no other Colours than *Black* and *White*, ſhould aſk the Meaning of the Word *Scarlet*; it is eaſy to perceive, that it would be no more poſſible to make him comprehend it by Words or a Definition, than to diſcourſe the ſame Perception into the Imagination of a Man born blind. The only Method in this Caſe is, to preſent ſome Object, by looking at which the Perception itſelf may be excited, and thus he will learn both the Name and the Idea together.

Experience and Obſervation bring Men to an Agreement in the Names of ſimple Ideas.

V. SHOULD any one's Curioſity now prompt him to enquire, how it comes to paſs, that Men agree in the Names of their ſimple Ideas, ſeeing they cannot view the Perceptions in one another's Minds, nor make known theſe Perceptions by Words to others; I anſwer, that the Effect

Effect here mentioned, is produced by Experience and Obſervation. Thus finding for inſtance that the Name *Heat*, is annexed to that Impreſſion which Men feel when they approach the Fire, I make it alſo the Sign of the Idea excited in me by ſuch an Approach, nor have any doubt but it denotes the ſame Perception in my Mind as in theirs. For we are naturally led to imagine, that the ſame Objects operate alike upon the Organs of the human Body, and produce an Uniformity of Senſations. No Man fancies, that the Idea raiſed in him by the Taſte of *Sugar*, and which he calls *Sweetneſs*, differs from that excited in another by the like Means; or that *Wormwood*, to whoſe Reliſh he has given the Epithet *Bitter*, produces in others the Senſation which he denotes by the Word *Sweet*. Preſuming therefore upon this Conformity of Perceptions, when they ariſe from the ſame Objects, we eaſily agree as to the Names of our ſimple Ideas; and if at any time, by a more narrow Scrutiny into things, new Ideas of this Claſs come in our way, which we chuſe to expreſs by Terms of our own Invention; theſe Names are explained, not by a Definition, but by referring to the Objects, whence the Ideas themſelves may be obtained.

The Conveyance of complex Ideas by Definitions, a wiſe Contrivance in Nature.

VI. BEING in this manner furniſhed with ſimple Ideas, and the Names by which they are expreſſed, the Meaning of Terms that ſtand for complex Ideas is eaſily got; becauſe the Ideas themſelves anſwering to theſe Terms, may be conveyed into the Mind by Definitions. For our complex Notions, as was already obſerved, are only certain Combinations of ſimple Ideas. When therefore theſe are enumerated, and the Manner in which they are united into one Conception explained, nothing more is wanting to raiſe that Conception in the Underſtanding; and thus the Term denoting it comes of courſe to be underſtood. And here it is worth while to reflect a little upon the wiſe Contrivance of Nature, in thus furniſhing us with the very apteſt Means of communicating our Thoughts. For were it not ſo ordered, that we could thus convey our complex Ideas from one to another by Definitions, it would in many Caſes be impoſſible to make them known at all. This is apparent in thoſe Ideas which are the proper Work of the Mind. For as they exiſt only in the Underſtanding, and have no real Objects in Nature in Conformity to which they are framed; if we could not make them known by Deſcription, they muſt lie for ever

ever hid within our own Breaſts, and be confined to the narrow Acquaintance of a ſingle Mind. All the fine Scenes, that riſe from time to time in the Poet's Fancy, and by his lively Painting give ſuch Entertainment to his Readers; were he deſtitute of this Faculty, of laying them open to the View of others by Words and Deſcription; could not extend their Influence beyond his own Imagination, or give Joy to any but the original Inventor.

And of great Uſe to the Improvement of Knowledge.

VII. THERE is this farther Advantage, in the Ability we enjoy, of communicating our complex Notions by Definitions; that as theſe make by far the largeſt Claſs of our Ideas, and moſt frequently occur in the Progreſs and Improvement of Knowledge; ſo they are by this means imparted with the greateſt Readineſs, than which nothing could tend more to the Increaſe and ſpreading of Science. For a Definition is ſoon peruſed, and if the Terms of it are well underſtood, the Idea itſelf finds an eaſy Admiſſion into the Mind. Whereas in ſimple Perceptions, where we are referred to the Objects producing them, if theſe cannot be come at, as is ſometimes the Caſe, the Names by which they are expreſſed muſt remain empty Sounds. But new Ideas of this Claſs occurring very rarely in the Sciences, they ſeldom create any great Obſtruction. It is otherwiſe with our complex Notions; for every Step we take, leading us into new Combinations and Views of Things, it becomes neceſſary to explain theſe to others, before they can be made acquainted with our Diſcoveries. And as the Manner of Definitions is eaſy, requiring no Apparatus but that of Words, which are always ready, and at hand; hence we can with the leſs Difficulty, remove ſuch Obſtacles, as might ariſe from Terms of our own Invention, when they are made to ſtand for new complex Ideas, ſuggeſted to the Mind by ſome present Train of thinking. And thus at laſt we are let into the Myſtery hinted at in the Beginning of this Chapter, *viz.* how we may become acquainted with the Thoughts of another, when he makes uſe of Words, to which we have as yet joined no Ideas. The Anſwer is obvious from what has been already ſaid. If the Terms denote ſimple Perceptions, he muſt refer us to theſe Objects of Nature, whence the Perceptions themſelves are to be obtained; but if they ſtand for complex Ideas, their Meaning may be explained by a Definition. As for the Names of ſimple Ideas, I ſhall here ſay nothing of it, being ſufficient to take notice, that our Knowledge this way, can be extended only by Experience and

and Obſervation. But the Theory of Definitions making a material Part of Logick, and being indeed of great Importance towards the Improvement of human Knowledge, it will be neceſſary to lay it a little more open to the View of the Reader.

The Compoſition and Reſolution of our complex Ideas.

VIII. COMPLEX Ideas are, as has been already ſaid, no other than ſimple Ideas put together in various Forms. But then it is to be obſerved, that in making theſe Collections, the Mind is not always tied down to the immediate View of the ſimple Perceptions out of which they are framed. For if we ſuppoſe the Underſtanding already furniſhed with a conſiderable Stock of compound Notions, theſe again may be made the conſtituent Parts of others ſtill more compounded, inſomuch that the new Idea thence ariſing, may be termed a Combination of complex Conceptions. Thus the Idea annexed to the Word *Animal*, includes many Perceptions under it, as Life, Senſe, ſpontaneous Motion, *&c.* In like manner by the Term *rational* we denote a Variety of ſimple Ideas. If now combining theſe two Conceptions together, we form the ſtill more complex Notion of a rational Animal; the Idea thus got, is truly a Collection of compound Notices. In a Word, the ſame thing happens here as in Numbers, which we may conſider not only as various Collections of Units, theſe being indeed their original and conſtituent Parts; but alſo as ſometimes compoſed of other leſſer Numbers, which all put together make up the reſpective Sums. Now in tracing any very large Number, when for the Eaſe of the Mind, we conſider it at firſt as compoſed of various others ſtill leſſer: if we next take theſe leſſer Parts to Pieces, and purſue them continually, until we arrive at the Units out of which they are compoſed; we thereby totally unravel the Collection, and being able to puſh our Reſearches no farther, reſt ſatisfied in the View thus offered to the Underſtanding. Juſt ſo it is in the Examination of our complex Ideas. For when any very compound Notion comes under the Inſpection of the Mind, in order to be traced to its firſt Principles; we begin with reſolving it into other Ideas leſs complicated, and taking theſe again to Pieces one by one, ſtill go on with the Search, until we have broken the whole into our firſt and ſimple Perceptions, beyond which the Purſuit cannot poſſible be carried. And this is the Reaſon, why I have all along called our ſimple Ideas, the Foundation and Ground-work of human Knowledge; becauſe in unravelling the Conceptions of the Mind, we find

ourſelves at length bounded by theſe Ideas, which are indeed the laſt Reſort of the Underſtanding.

The Names of ſimple Ideas may be conſidered as the Elementary Parts of Language.

IX. FROM what has been ſaid it will be eaſy to conceive, how in defining a Term, ſtanding for any very complex Idea, other Terms may be introduced, that alſo denote compound Ideas, though of an inferior Claſs. For the firſt Idea being reſolvable into others leſs complicated, the Definition which enumerates theſe component Ideas, muſt conſiſt of the Names by which they are expreſſed. And if it ſo happen, that the Ideas of this ſecond Claſs are alſo unknown, their Terms too ought to be ſtill farther defined. In this manner may a Series of Definitions be carried on, until we arrive at the Names of ſimple Ideas, which not being definable, the Analyſis muſt neceſſarily ceaſe. And thus we ſee, that as our ſimple Ideas, are the Materials and Foundation of Knowledge, ſo the Names of ſimple Ideas, may be conſidered as the Elementary Parts of Language, beyond which we cannot trace the Meaning and Signification of Words. When we come to them, we ſuppoſe the Ideas they ſtand for already known, or if they are not, Experience alone muſt be conſulted, and not Definitions or Explications. And here it is well worth our Notice, that as the Names of theſe our original Conceptions, conſtitute the primary and fundamental Articles of Speech, upon which the whole Superſtructure of human Language is built, ſo they are of all others the leaſt doubtful and uncertain in their Signification. Becauſe ſtanding each for one ſimple Perception, not precariouſly excited in the Mind, but the Effect of certain Powers in Things, fitted to produce that Senſation in us; there is no Danger of Error or Miſtake. He that once knows *Sweetneſs* to be the Name of the Taſte received from Sugar, *Whiteneſs* of the Colour in Snow or Milk, and *Heat* of the Senſation produced by approaching the Fire, will not be apt to miſapply thoſe Words, or annex them to Perceptions of a different Kind. And as the Names of complex Ideas, may all be reſolved into theſe primitive Terms, it is apparent that we are ſufficiently provided with the Means of communicating our Thoughts one to another; and that the Miſtakes ſo frequently complained of on this Head, are wholly owing to ourſelves, in not ſufficiently defining the Terms we uſe, or perhaps not connecting them with clear and determinate Ideas.

CHAP.

CHAP. VI.

Of Definition and its ſeveral Kinds.

The Variety of Definitions proceeds from the various Application of Words.

I. HAVING laid theſe Foundations, ſhewn what Words are, and what are not definable, and taught the Manner of reſolving our Notions, as well as Language itſelf, into its firſt and original Principles; we now proceed to explain a little more particularly the Nature of a Definition, and the ſeveral Kinds made uſe of, according to the different Views Men have, in communicating their Thoughts one to another. Definitions are intended to make known the Meaning of Words ſtanding for complex Ideas, and were we always careful to form thoſe Ideas exactly in our Minds, and copy our Definitions from that Appearance, much of the Confuſion and Obſcurity complained of in Languages might be prevented. But unhappily for us we are by no means ſteddy in the Application of Names, referring them ſometimes to one thing, ſometimes to another; which often creates great Uncertainty in their Signification, and obliges us to give a different Turn to our Definitions, according to the different Reference of the Terms defined. In order therefore to render this whole Matter as clear and obvious as poſſible, we ſhall firſt conſider, to what it is that Names, in the Uſe of Language, are moſt commonly applied; and then from the Variety of this Application, endeavour to account for the ſeveral Methods of defining mentioned in the Writings of Logicians.

Words have a threefold Reference; to our own Ideas, thoſe of other, and the real Being of things.

II. WORDS then have manifeſtly a threefold Reference. Firſt and more immediately, they denote the Idea in the Mind of him who uſes them; and this is their true and proper Signification. When a Man ſpeaks, it is that he may be underſtood, and the Words he employs to convey his Thoughts are ſuch as by Uſe he has learnt to connect with the Ideas then preſent to His Mind. But becauſe thoſe with whom we converſe, are alſo ſuppoſed to know the Meaning of the Terms we uſe, hence, Secondly, we conſider our Words, as Signs likewiſe of the Ideas in their Minds; and this is the Foundation of what is called Propriety in Language, when Men take care to affix ſuch Notions to their Words, as are commonly applied

applied to them by thoſe of moſt Underſtanding in the Country where they live. The third and laſt Reference of Words, is to Things themſelves. For many of our Ideas, are taken from the ſeveral Objects of Nature, wherewith we are ſurrounded; and being conſidered as Copies of things really exiſting, the Words by which they are expreſſed are often transferred from the Ideas themſelves, to ſignify thoſe Objects which they are ſuppoſed to repreſent. Thus the Word *Sun*, not only denotes the Idea excited in the Mind by that Sound, but is alſo frequently made to ſtand for the luminous Body itſelf, which inhabits the Center of this our Planetary Syſtem. Now according to this threefold Application of Names, their Definitions, and the Manner of explaining them, muſt be various; for it is one thing to unfold the Ideas in a Man's own Mind, another to deſcribe them as they are ſuppoſed to make their Appearance in the Minds of others; and laſtly, it is ſomething ſtill different, to draw Images or Pictures, that ſhall carry in them a Conformity to the Being and Reality of Things. But we ſhall treat of each in Order.

Different uſe of the Name ſtands for the Conception of an Object, and the Idea ſometimes therefore ambiguous.

III. FIRST then, when we conſider Words, as Signs of the Ideas in the Mind of him who uſes them; a Definition is nothing elſe, but ſuch an Explication of the Meaning of any Term, as that the complex Idea annexed to it by the Speaker, may be excited in the Underſtanding of him with whom he converſes. And this is plainly no more than teaching the Connection of our Words and Ideas, that others may underſtand the Senſe of our Expreſſions, and know diſtinctly what Notions we affix to the Terms we uſe. When we ſay for inſtance, that by the Word *Square*, we mean a Figure bounded by four equal Sides, joined together at right Angles; what is this but a Declaration, that the Idea of a quadrilateral, equilateral, rectangular Figure, is that which in Diſcourſe or Writing, we connect with the Term *Square*? This is the firſt Kind of Definition, which Logicians call the *Definition of the Name*; becauſe it diſcovers the Meaning of the Words or Name we make uſe of, by ſhewing the Ideas for which they ſtand. Now as Sounds are of themſelves indifferent to ſignify any Ideas, hence it is plain, that the Definitions of Names are arbitrary, every Man having a Liberty to affix what Notion he pleaſes to his Words. But the Convenience of Communication making it neceſſary, for Men ſpeaking the ſame Language, to agree as nearly as poſſible in the

the Signification of Sounds, a Conformity has accordingly been ſtudied. Nevertheleſs we find, that Differences will from time to time creep in, which muſt create great Confuſion in Mens Diſcourſes and Reaſonings, if they are not careful to define their Terms, that their Signification may be kept fixed and ſteddy, and lie always open to the View of the Mind. The Writings of the Mathematicians are a clear Proof, how much the Advancement of human Knowledge depends upon a right Uſe of Definitions. For as by means of them, they every where preſerve the ſame determined Signification to their Words, hence there is little Diſpute as to the Meaning of their Expreſſions, almoſt all Men underſtanding them in the ſame Senſe. And thus it happens, that ſuch as apply their Thoughts this way, having perfectly the ſame Views of Things, readily comprehend the Diſcoveries already made, and are thereby enabled, with joint Labour, and an exact Conformity of Notions, to carry on the Improvement of this Branch of Knowledge. And if Men in other Parts of Learning, were alike careful to fix the Meaning of their Terms, the Progreſs of Science muſt be greatly furthered, and all thoſe verbal Diſputes, that now ſo much interrupt the Courſe of our Improvement, might be prevented.

Definitions of the Names not always true and real Definitions.

IV. THIS then ought to be our firſt Care, when we enter upon a Deſign of illuſtrating any particular Branch of Study; to aſcertain our Ideas, and mark the Names by which they are expreſſed. And although Definitions of Words are indeed arbitrary, (for a Man may affix what Ideas he pleaſes to his Terms, nor can any one conteſt this Liberty with him,) yet it will be proper to conform as near as poſſible to common Acceptation, that thereby our Thoughts may find a more eaſy and ready Entrance into the Minds of others. If it ſhould now be aſked, what are the Rules of a good Definition? I anſwer, that as in Definitions of the Name, we aim at no more, than teaching the Connection of Words and Ideas; every Contrivance, by which we are enabled, to excite the Idea annexed to any Word in the Mind of another, will ſerve the Purpoſe of a Definition. Now the Ideas we join with our Words are of two kinds: either ſuch as have reaſon to believe are already in the Minds of others, though perhaps they know not the Names by which they are called; or ſuch as being new and of our own Formation, can no otherwiſe be made known than by a Deſcription. In the firſt Caſe, there is no Neceſſity for laying open the Idea itſelf, becauſe being already known, any

Contrivance

Contrivance to remind us of it is ſufficient. When we ſay for inſtance, that a *Clock is an Inſtrument by which we meaſure the Hours of the Day*; it is plain, that the Idea anſwering to the Word *Clock*, is not here unfolded; but we being before-hand ſuppoſed to have an Idea of this Inſtrument, are only taught by what Name it is called. Now in this Senſe, the Names of even ſimple Ideas may be defined. For by ſaying that *White* is the Colour we obſerve in Snow or Milk, *Heat* the Senſation produced by approaching the Fire, we ſufficiently make known what Ideas we connect with the Terms *White* and *Heat*, which is the true Purpoſe of a Definition of the Name. Hence it appears, that many of thoſe Explanations of Words, which Logicians call Definitions of the Name, are not Definitions in a true and proper Senſe, that is, ſuch Deſcriptions of Ideas, as would ſerve to excite them in the Mind of another, even ſuppoſing him before wholly unacquainted with them, but merely Contrivances to remind us of known Ideas, and teach us the Names by which they are called.

But only when they coincide with the Definition of the Thing.

V. BUT where the Ideas we join with our Words, are new and of our own Formation, there they are to be laid open by a Deſcription. Becauſe being ſuppoſed unknown to others, we muſt firſt raiſe them in their Minds, before they can learn to connect them with any particular Names. And here it is, that the *Definition of the Name* coincides with what Logicians call the *Definition of the Thing*, as in either Caſe we proceed, by unfolding the Idea itſelf, for which the Term defined ſtands. And indeed this alone is what conſtitutes a Definition, in the true and proper Senſe of the Word, as will appear more fully afterwards, when we come to conſider the Terms we uſe, as referred to the real Objects of Nature. We ſhall therefore poſtpone this Conſideration of the Definition of the Name, till we come to treat of the Definition of the Thing, when it will more naturally fall in our way. It may not however be amiſs to obſerve, that when we ſay the Definitions of the Name are arbitrary, we mean not that the Deſcriptions of Ideas are ſo too, For every Idea having a peculiar Appearance of its own, by which it is diſtinguiſhed from all others, nothing is more evident, than that the Deſcription muſt be ſuch, as to exhibit that preciſe Conception. But then the Connection of any Idea, with the Name by which it is expreſſed, being as we have ſaid wholly arbitrary, the conſidering the Deſcription of that Idea, as the Definition of that peculiar Name, muſt

muſt be ſo too. So that although Definitions conſidered as Deſcriptions of our Ideas, are ſteddy and invariable, yet the Application of them to particular Sounds, (which is all that we underſtand by the Definition of the Name) is wholly a Work of our own free Choice.

Definitions of Words according to the common Uſe of Language not arbitrary.

VI. BUT ſecondly, beſides conſidering Words as the Signs of our own Ideas, we are alſo very apt on many Occaſions, to refer them to the Ideas in the Minds of other Men. Now to define a Term in this View, is to inveſtigate its Meaning or Acceptation, according to the common Uſe of Speech. Here then it is plain that Definitions are not arbitrary. For although in regarding Words as the Marks of our own Ideas, we may give them what Meaning we pleaſe; yet when we conſider them in reference to the thoughts of others, they have a fixed and ſteddy Signification; namely, that which Cuſtom, and the Propriety of Language, has aſſigned them. The Words *Ability*, and *Genius*, may by any Man be made to ſtand for one and the ſame Idea in his own Mind, and if he takes care to advertiſe us of this, he is at liberty to uſe them promiſcuouſly. But if the common Courſe of Language, hath confined the Word *Genius*, to expreſs the natural Strength and Talents of the Mind, and the Word *Ability* to denote thoſe which are acquired, whoever pretends to explain the proper Acceptation of theſe Terms, is bound to take notice of this Difference. As Propriety of Speech makes our Language intelligible, and gives our Thoughts a ready Entrance into the Minds of others, it well deſerves our Application and Care. The beſt way to acquire it is from the Writings and Diſcourſes of thoſe, who ſeem to have had the cleareſt Notions, and to have applied their Terms with the exacteſt Choice and Fitneſs.

Definitions of the Things refer to the real Objects of Nature.

VII. WE come now to the third and laſt Species of Definitions, that namely which conſiders Words as referred to Things themſelves. And here it is plain we are not at liberty to feign and faſhion our Explications at pleaſure, but being tied down to the real Objects of Nature, muſt ſtudy a Conformity to Things themſelves. When we define for inſtance the *Sun*, conſidered as that Being, who poſſeſſes the Center of our Syſtem, and diffuſes Heat and Light to the Planets around him; it is not enough that we give an Account of the Idea, anſwering to that Word in our Minds. We muſt further take care, that the Idea itſelf, car-

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ries in it a real Conformity to the Object it is ſuppoſed to repreſent. And hence it is, that all Definitions of this kind, when juſtly made, are in reality Pictures or Repreſentations, taken from the Being and Exiſtence of Things. For they are intended to expreſs their Nature and Properties, ſo as to diſtinguiſh them from all others, and exhibit them clearly to the View of the Mind. 'Tis for this Reaſon that Logicians call them *Definitions of the Thing*, becauſe they are ſuppoſed to refer not ſo much to the Ideas in the Underſtanding, as to the Things themſelves repreſented by thoſe Ideas.

Ground of the Diſtinction between the Definition of the Name and of the Thing.

VIII. AND this alſo lets us into the Ground of that Diſtinction ſo univerſally received, between Definitions of the Name and of the Thing. The firſt are arbitrary, and not liable to Debate or Contradiction. The ſecond are Propoſitions capable of Proof and Illuſtration, and which may therefore be conteſted. The Reaſon is obvious. Definitions of the Name ſerve only to mark, what Ideas we connect with our Words. And as Sounds are of themſelves indifferent to ſignify any Ideas, we are entirely at liberty to affix to them what Notions we pleaſe. But it is otherwiſe in the Definition of the Thing. For here our Words ſerving to denote certain particular Beings in Nature, cannot be the Signs of any Ideas at pleaſure, but of ſuch only as carry in them a Conformity to the ſeveral Objects to which the Words refer. A Man may uſe the Term *Square* to expreſs that Idea, which others denote by the Word *Triangle*, and define it accordingly. In this Caſe indeed he recedes from the common Forms of Speech, but his Definition cannot be charged with Falſhood. He tell us that by a *Square* he means a three-ſided Figure, and who can diſpute the Truth of this, if he really all along uſes the Word in that Senſe? I would only obſerve, that by changing thus the Meaning of Words, we change not Things themſelves, or their Relations and Habitudes one towards another. Theſe are at all times the ſame and invariable, nor have any Dependence upon the Fancy and Caprice of Men. It is true the Properties of the *Triangle* may after this Definition, be affirmed of the *Square*; but as in either Caſe, the Ideas to which theſe Properties belong, is the ſame, the Propoſitions only expreſſing our Judgments, and not our Judgments themſelves, ſuffer a ſeeming Variation.

IX.

A previous Connection between Names and Things, cuts off arbitrary Explications.

IX. BUT where Words are made to denote particular Objects, previous to any Definitions given, there arbitrary Explications cannot have place. For in this Caſe, we are not put upon explaining what Ideas we connect with our Words, but a Connection being already ſuppoſed, between the Name and the Thing ſignified, our Buſineſs is, to unfold that Idea, by which the Object itſelf is moſt clearly and diſtinctly repreſented. Thus the Word *Gold* denotes that Metal, which is of higheſt Value among Men, and goes fartheſt in the way of Commerce. This Connection being once ſettled, we are no longer left to arbitrary Definitions, but muſt deſcribe it by ſuch Properties as are really to be found in it, and will beſt ſerve to diſtinguiſh it when it comes in our way; as by ſaying that it is *a Subſtance yellow, very heavy, malleable, fuſible*, &c.

Why Mathematical Definitions have been accounted mere Definitions of the Name.

X. FROM what has been ſaid it appears, that in the Language of Logicians, Definitions of the Thing reſpect only Subſtances, and Beings that have a real Exiſtence in Nature, ſerving to deſcribe them by their Properties and Attributes. And this I doubt not is the Reaſon, that the Definitions of the Mathematicians, are not conſidered as Definitions of the Thing, but of the Name; becauſe the Ideas therein deſcribed, are mere Creatures of the Underſtanding, and not ſuppoſed to be copied from Patterns exiſting without. A Circle, a Triangle, a Square, &c. ſuch as Mathematicians conceive them, are no where to be found in Nature, that we know of. Hence it might juſtly be accounted abſurd, to call our Definitions of theſe *Definitions of the Thing*, when they ſerve not to deſcribe any real Objects of Nature, but merely to unfold the Conceptions of the Mind. And yet if we look into the Matter narrowly, we ſhall find, that the Rules followed in theſe Definitions, are preciſely the ſame, with thoſe which Logicians have laid down for the Definition of the Thing. All the ſeveral Species of Figures are deſcribed by their Properties, ſome of which are common to different Ranks, others peculiar to the Tribe defined. The common Properties conſtitute what Logicians call the *Genus*, and thoſe that are peculiar the *Difference*. Now the *Genus* and *Difference* make up the Logical Definition of the Thing, as will be more clearly underſtood from what follows.

XI.

Where yet they coincide with the Logical Definition of the Thing, and therefore ought not to be accounted arbitrary.

XI. I AM therefore apt to think, that Mathematical Definitions, as they are of the ſame general Form with the Definitions of Subſtances, and ſubject to the ſame Rules, have been improperly conſidered as mere Definitions of the Name, in which we are left wholly to arbitrary Explications. For however we may change the Name of one Figure for another in Diſcourſe or Writing, uſing the Term *Square* to denote a *Triangle*, or the Word *Triangle* to expreſs a *Square*, it is certain the Ideas themſelves are invariable, and no leſs capable of being diſtinguiſhed by their Properties, than the ſeveral Species of Subſtances. Thus if we ſuppoſe the Word *Square*, to denote that Species of Figures, whoſe Sides ſeverally ſubtend Quadrants of a circumſcribed Circle, we ſhall find ourſelves equally ſhut out from arbitrary Explications, as in the Definition of the Names of Subſtances. For as this happens in no Figures but thoſe which are bounded by four equal Sides, joined together at right Angles; it follows evidently, that the true and proper Definition of a *Square*, is that which exhibits the preciſe Idea here mentioned, and no other, to the Mind. And thus it appears, that the common Diviſion of Definitions, into thoſe of the Name and Thing, is not ſufficiently calculated to give us right Apprehenſions, as to what is and what is not arbitrary in the Explication of Words. It may not therefore be improper, if we here endeavour to clear up this Matter a little, and free it from thoſe Obſcurities in which it has hitherto been involved. To this end we ſhall premiſe the following Obſervations.

Definitions properly ſpeaking never regard Things, but merely our own Ideas.

XII. 1. FIRST, that whatever Logicians may pretend about the Definition of the Thing, it is yet certain, that none of our Definitions when purſued to their Source, regard immediately Things themſelves, but merely the Ideas in our own Minds. This I doubt not will appear a Paradox to many, who will be apt to enquire, whether the Definition of *Gold*, be not taken from that Metal, independent of the various Conceptions of Men about it. To this I anſwer, that indeed in framing our Idea of *Gold*, we regard chiefly the Thing itſelf, uniting in our Conception ſuch Properties as are moſt conſpicuous, and ſerve beſt to diſtinguiſh it from other Metals, to which it may bear any Reſemblance. But as it is by this Idea alone that Gold is known to us, ſo in deſcribing it to others, we aim at nothing more than to transfer

nsfer the ſame Conception into their Minds. Now this n no otherwiſe be done, but by enumerating the ſeveral operties out of which our own complex Notion is formed. nd indeed it were in the higheſt Degree abſurd to imagine, at Men in explaining Things to others, ſhould make uſe of ıy Marks or Characters, but thoſe by which they are known themſelves. Hence it comes to paſs, that all our Definiıns, are in Fact nothing elſe but Tranſcripts of the Ideas our Minds. Where theſe are imperfect, the Definition uſt be ſo too; where they are juſt and adequate, the Copies ken from them, if drawn out with Accuracy and Care, nnot fail to exhibit the Object deſcribed. And this will very ell ſerve to account, for that great Diverſity of Definitions e often meet with, even of one and the ſame Object. Beuſe Men, in conſequence of their different Purſuits and pplications, falling often into different Views of Things, uſt needs vary no leſs in their Definitions, than in the Ideas emſelves from which theſe Definitions are copied. He whoſe bſervation goes no farther than the more obvious Qualities Gold, will content himſelf with deſcribing it by its Colour, eight, and perhaps Malleability and Fuſibility. On the her hand a Goldſmith, having enquired farther into the ature of that Metal, and finding ſeveral other Properties at equally belong to it, will be apt to take theſe alſo into his mplex Idea, and accordingly introduce them into a Defiıı. Hence his Deſcription will add to the former, Fixedneſs, d Solubility in *Aqua Regia*, &c. And ſo in Proportion, as en's various Purſuits lead them into a more accurate Exıination of things, their Explications will take a different urn, ſuitable to the Ideas they have framed within themves.

XIII. 2. THIS then being evident, that our efinitions reſpect not Things themſelves, but the as in our own Minds; I would in the next ce obſerve, that the Diſtinction of them into ɔſe of the Name and Thing, is altogether uſeis, and tends rather to miſlead us, than give ght Apprehenſions of the Subject in Hand. r thus Men are apt to fancy, that many of their Definins are expreſſive of the real Eſſence of Things, whereas they in Truth no more than Tranſcripts of their own Ideas. d as it ſometimes falls out, that theſe Ideas are not collect- with ſufficient Care, from the Objects they repreſent; we d by Experience, that a miſtaken Idea, never fails to occan a Miſtake alſo in the Definition. But this could not

Diſtinction between the Definition of the Name and Thing, uſeful ſs and to be rejected.

happen, were our Definitions copied from Things themſelves: becauſe their Eſſences being immutable and always the ſame, the Definition would in this Caſe ſerve to correct the Idea, and might be conſidered as a Standard, by which to judge, whether the Idea was rightly framed. I deny not that Words are often transferred from our Ideas, to ſignify the Objects which theſe Ideas repreſent; as when we talk of the Sun, the Earth, Men, and other Animals. But then let it be obſerved, that as theſe Objects are only known to us, by the Ideas of them in our Minds; ſo in deſcribing them to others, all we aim at is, diſtinctly to lay open our Conceptions about them. Hence it appears, that what Logicians call a *Definition of the Thing*, is in truth no more, than an unfolding of the Idea, by which that Thing is repreſented to the Underſtandiug. But now in Mathematical Definitions, and indeed all others whatſoever, this alſo is our whole Aim and Intent, to exhibit and lay open thoſe Ideas, of which the Words we uſe are the Signs. And thus it happens, that in innumerable Inſtances, which Logicians call the *Definition of the Name*, is yet found to coincide with, and proceed by the very ſame Rules, as the *Definition of the Thing*; which clearly demonſtrates the Neceſſity of baniſhing this frivolous Diſtinction, and eſtabliſhing ſome preciſe and determinate Notion, expreſſive of the true Nature of a Definition, and comprehending it in its full Extent.

Definitions in all Caſes Deſcriptions of our Ideas.

XIV. NOR will this appear ſo difficult a Taſk if we call to mind, that Words are in all Caſes the Signs of our Ideas, and no otherwiſe ſignify things, than as they ſtand for thoſe Ideas by which things are repreſented to the Underſtanding. By defining our Words therefore we can mean no more, than the laying open to the View of others the Ideas of which theſe Words are Signs. For thus it is that the Meaning of our Expreſſions comes to be known, and that we find ourſelves capable of transferring our Thoughts and Conceptions into the Minds of thoſe with whom we converſe. Where Words are referred to Things themſelves, there we explain the Ideas by which theſe things are repreſented; where they denote Conceptions framed by the Mind, there we lay open theſe Conceptions, and endeavour to exhibit them according to their real Appearance within our own Breaſts. But in both Caſes it is our own Ideas, it is the Perceptions of our own Minds, either as taken from Things without, or framed by the Underſtanding itſelf, that we explicate and unfold.

Not arbitrary, as being confined to the Repreſentation of certain determinate Notions.

XV. AND thus we have at length ſettled the true and genuine Notion of a Definition, comprehending all its Varieties, from whatever Science taken, or to whatever Objects extended. For from what we have ſaid it evidently follows, that a Definition *is the unfolding of ſome Conception of the Mind, anſwering to the Word or Term made Uſe of as the Sign of it.* Now as in exhibiting any Idea to another, it is neceſſary that the Deſcription be ſuch, as may excite that preciſe Idea in his Mind; hence it is plain, that Definitions properly ſpeaking are not arbitrary, but confined to the repreſenting of certain determinate ſettled Notions, ſuch namely as are annexed by the Speaker or Writer to the Words he uſes. As nevertheleſs it is univerſally allowed, that the Signification of Words is perfectly voluntary, and not the Effect of any natural and neceſſary Connection, between them and the Ideas for which they ſtand, ſome may perhaps wonder why Definitions are not ſo too. In order therefore to unravel this Difficulty, and ſhow diſtinctly what is, and what is not arbitrary in Speech, we muſt carefully diſtinguiſh between the Connection of our Words and Ideas, and the unfolding of the Ideas themſelves.

The Connection between Words and Ideas, a perfectly voluntary Eſtabliſhment.

XVI. FIRST, as to the Connection of our Words and Ideas, this it is plain is a purely arbitrary Inſtitution. When for inſtance we have in our Minds, the Idea of any particular Species of Metals, the calling it by the Name *Gold*, is an Effect of the voluntary Choice of Men ſpeaking the ſame Language, and not of any peculiar Aptneſs in that Sound to expreſs that Idea. Other Nations we find make Uſe of different Sounds, and with the ſame Effect. Thus *Aurum* denotes that Idea in *Latin*, and *Or* in *French*. And even the Word *Gold* itſelf, would have as well ſerved to expreſs the Idea of that Metal which we call *Silver*, had Cuſtom in the Beginning eſtabliſhed it.

The Deſcriptions of Ideas not ſo, but founded in the Repreſentation of that preciſe Appearance by which they are diſtinguiſhed among themſelves.

XVII. BUT although we are thus entirely at Liberty, in connecting any Idea with any Sound, yet it is quite otherwiſe in unfolding the Ideas themſelves. For every Idea, having a preciſe Appearance of its own, by which it is diſtinguiſhed from every other Idea; it is manifeſt, that in laying it open to others, we muſt ſtudy ſuch a Deſcription, as ſhall exhibit that peculiar Appearance. When we have formed to ourſelves the Idea of a Figure, bounded by four equal

Sides, joined together at right Angles, we are at Liberty to expreſs that Idea by any Sound, and may call it either a *Square* or a *Triangle*. But whichever of theſe Names we uſe, ſo long as the Idea is the ſame, the Deſcription by which we would ſignify it to another, muſt be ſo too. Let it be called *Square* or *Triangle*, it is ſtill a Figure having four equal Sides, and all its Angles right ones. Hence we clearly ſee, what is and what is not arbitrary in the Uſe of Words. The eſtabliſhing any Sound, as the Mark of ſome determinate Idea in the Mind, is the Effect of free Choice, and a voluntary Combination among Men. And as different Nations make uſe of different Sounds, to denote the ſame Ideas, hence proceeds all that Variety of Languages, which we meet with in the World. But when a Connection between our Ideas and Words is once ſettled, the unfolding of the Idea anſwering to any Word, which properly conſtitutes a Definition, is by no Means an arbitrary thing. For here, as I have already obſerved, we are bound to exhibit that preciſe Conception, which either the Uſe of Language, or our own particular Choice, hath annexed to the Term we uſe.

Cauſes of the Obſcurity that has hitherto perplexed the Theory of Definitions.

XVIII. AND thus it appears, that Definitions conſidered as Deſcriptions of Ideas in the Mind, are ſteady and invariable, being bounded to the Repreſentation of theſe preciſe Ideas. But then in the Application of Definitions to particular Names, we are altogether left to our own free Choice. Becauſe as the Connecting of any Idea, with any Sound, is a perfectly arbitrary Inſtitution; the applying the Deſcription of that Idea, to that Sound, muſt be ſo too. When therefore Logicians tell us, that the Definition of the Name is arbitrary, they mean no more than this; that as different Ideas may be connected with any Term, according to the good Pleaſure of him that uſes it, in like manner may different Deſcriptions be applied to the Term, ſuitable to the Ideas ſo connected. But this Connection being ſettled, and the Term conſidered as the Sign of ſome fixed Idea in the Underſtanding, we are no longer left to arbitrary Explications, but muſt ſtudy ſuch a Deſcription, as correſponds with that preciſe Idea. Now this alone, according to what has been before laid down, ought to be accounted a Definition. What I am apt to think has occaſioned no ſmall Confuſion in this Matter, is; that many Explanations of Words, where no Idea is unfolded, but merely the Connection between ſome Word and Idea aſſerted, have yet been dignified with the Name of Definitions. Thus in the

the Inſtance before given, when we ſay that *a Clock is an Inſtrument by which we meaſure Time:* that is by ſome called a Definition. And yet it is plain, that we are beforehand ſuppoſed to have an Idea of this Inſtrument, and only taught that the Word *Clock*, ſerves in common Language to denote that Idea. By this Rule, all Explications of Words in our Dictionaries will be Definitions, nay as was already obſerved, the Names of even ſimple Ideas may be thus defined. *White* we may ſay is the Colour we obſerve in Snow or Milk, *Heat* the Senſation produced by approaching the Fire, and ſo in innumerable other Inſtances. But theſe, and all others of the like kind, are by no means Definitions, exciting new Ideas in the Underſtanding, but merely Contrivances to remind us of known Ideas, and teach their Connection with the eſtabliſhed Names. It is nevertheleſs worth our Notice, that what Logicians call Definitions of the Name, extend properly no farther than theſe Explanations, ſerving to mark the Connection of our Ideas and Words; and are therefore juſtly accounted arbitrary, inaſmuch as the Connections themſelves are altogether ſo.

Complex Ideas alone capable of that Kind of Deſcription which goes by the Name of a Definition.

XIX. BUT now in Definitions properly ſo called, we firſt conſider the Term we uſe, as the Sign of ſome inward Conception, either annexed to it by Cuſtom, or our own free Choice; and then the Buſineſs of the Definition is, to unfold and explicate that Idea. As therefore the whole Art lies, in giving juſt and true Copies of our Ideas; a Definition is then ſaid to be perfect, when it ſerves diſtinctly to excite the Idea deſcribed, in the Mind of another, even ſuppoſing him before wholly unacquainted with it. This Point ſettled, let us next enquire, what thoſe Ideas are, which are capable of being thus unfolded? And in the firſt place it is evident, that all our ſimple Ideas are neceſſarily excluded. We have ſeen already, that Experience alone is to be conſulted here, inſomuch that if either the Objects whence they are derived come not in our Way, or the Avenues appointed by Nature for their Reception are wanting, no Deſcription is ſufficient to convey them into the Mind. But where the Underſtanding is already ſupplied with theſe original and primitive Conceptions, as they may be united together in an Infinity of different Forms; ſo may all their ſeveral Combinations be diſtinctly laid open, by enumerating the ſimple Ideas concerned in the various Collections, and tracing the Order and Manner in which they are linked one to another. Now theſe Combinations of

ſimple Notices conſtitute what we call our complex Notions; whence it is evident, that complex Ideas, and thoſe alone, admit of that kind of Deſcription, which goes by the Name of a Definition.

When a complex Idea may be ſaid to be fully unfolded.

XX. THE Buſineſs of Definitions is now I think pretty plain. They are as we have ſeen, Pictures or Repreſentations of our Ideas; and as theſe Repreſentations are then only poſſible, when the Ideas themſelves are complex; it is obvious to remark, that Definitions cannot have place, but where we make uſe of Terms, ſtanding for ſuch complex Ideas. But perhaps the Reader may ſtill expect, that we ſhould enter a little more particularly into the Nature of a Definition, deſcribe its Parts, and ſhew by what Rules it ought to proceed, in order to the Attainment of its proper End. To give therefore what Satisfaction we are able upon this Point, we muſt again call to mind, that the Deſign of a Definition is, ſo to unfold the Idea anſwering to any Term, as that it may be clearly and diſtinctly transferred into the Mind of another. But now our complex Ideas, which alone are capable of this kind of Deſcription, being as we have ſaid nothing more, than different Combinations of ſimple Ideas; we then know and comprehend them perfectly, when we know the ſeveral ſimple Ideas of which they conſiſt, and can ſo put them together in our Minds, as is neceſſary towards the framing of that peculiar Connection, which gives every Idea its diſtinct and proper Appearance.

Two Things required in a Definition: to enumerate the Ideas, and explain the Manner of their Combination.

XXI. Two Things are therefore required in every Definition. Firſt, that all the original Ideas out of which the complex one is formed, be diſtinctly enumerated. Secondly, that the Order and Manner, of combining them into one Conception, be clearly explained. Where a Definition has theſe Requiſites, nothing is wanting to its Perfection; becauſe every one who reads it, and underſtands the Terms, ſeeing at once what Ideas he is to join together, and alſo in what Manner; can at pleaſure form in his own Mind, the complex Conception anſwering to the Term defined. Let us for Inſtance ſuppoſe the Word *Square*, to ſtand for that Idea, by which we repreſent to ourſelves a Figure, whoſe Sides ſubtend Quadrants of a circumſcribed Circle. The Parts of this Idea, are the Sides bounding the Figure. Theſe muſt be four in Number, and all equal among themſelves, becauſe they are each to ſubtend a fourth Part of the ſame Circle. But beſides theſe component Parts, we muſt alſo take

take notice of the Manner of putting them together, if we would exhibit the preciſe Idea, for which the Word *Square* here ſtands. For four equal right Lines, any how joined, will not ſubtend Quadrants of a circumſcribed Circle. A Figure with this Property, muſt have its Sides ſtanding alſo at right Angles. Taking in therefore this laſt Conſideration, reſpecting the Manner of combining the Parts, the Idea is fully deſcribed, and the Definition thereby rendered compleat. For a Figure bounded by four equal Sides, joined together at right Angles, has the Property required; and is moreover the only right-lined Figure, to which that Property belongs.

How we are to proceed to arrive at juſt and adequate Definitions.

XXII. AND now I imagine it will be obvious to every one, in what Manner we ought to proceed, in order to arrive at juſt and adequate Definitions. Firſt, we are to take an exact View of the Idea to be deſcribed, trace it to its original Principles, and mark the ſeveral ſimple Perceptions, that enter into the Compoſition of it. Secondly, we are to conſider the particular Manner, in which theſe elementary Ideas are combined, in order to the forming of that preciſe Conception, for which the Term we make uſe of ſtands. When this is done, and the Idea wholly unravelled, we have nothing more to do, than fairly tranſcribe the Appearance it makes to our own Minds. Such a Deſcription, by diſtinctly exhibiting the Order and Number of our primitive Conceptions, cannot fail to excite at the ſame time, in the Mind of every one that reads it, the complex Idea reſulting from them; and therefore attains the true and proper End of a Definition.

CHAP. VII.

Of the Compoſition and Reſolutions of our Ideas, and the Rules of Definition thence ariſing.

In compounding our Ideas, we proceed by a ſucceſſive Gradation.

I. THE Rule laid down in the foregoing Chapter is general, extending to all poſſible Caſes; and is indeed that to which alone we can have recourſe, where any Doubt or Difficulty ariſes. It is not however neceſſary, that we ſhould practiſe it in every particular Inſtance. Many of our Ideas are extremely complicated, inſomuch that to enumerate all the ſimple Perceptions, out of which they are form-

ed, would be a very troubleſome and tedious Work. For this Reaſon, Logicians have eſtabliſhed certain compendious Rules of defining, of which it may not be amiſs here to give ſome Account. But in order to the better underſtanding of what follows, it will be neceſſary to obſerve, that there is a certain Gradation in the Compoſition of our Ideas. The Mind of Man is very limited in its Views, and cannot take in a great Number of Objects at once. We are therefore fain to proceed by Steps, and make our firſt Advances ſubſervient to thoſe which follow. Thus in forming our complex Notions, we begin at firſt with but a few ſimple Ideas, ſuch as we can manage with Eaſe, and unite them together into one Conception. When we are provided with a ſufficient Stock of theſe, and have by Habit and Uſe rendered them familiar to our Minds, they become the component Parts of other Ideas ſtill more complicated, and form what we may call a ſecond Order of compound Notions. This Proceſs, as is evident, may be continued to any Degree of Compoſition we pleaſe, mounting from one Stage to another, and enlarging the Number of Combinations.

Hence Ideas of this Kind are comprehended, when we advance gradually through all the ſeveral Orders.

II. BUT now in a Series of this kind, whoever would acquaint himſelf perfectly, with the laſt and higheſt Order of Ideas, finds it much the moſt expedient Method, to proceed gradually through all the intermediate Steps. For was he to take any very compound Idea to pieces, and without regard to the ſeveral Claſſes of ſimple Perceptions, that have already been formed into diſtinct Combinations, break it at once into its original Principles, the Number would be ſo great, as perfectly to confound the Imagination, and overcome the utmoſt Reach and Capacity of the Mind. When we ſee a prodigious Multitude of Men, jumbled together in Crowds, without Order, or any regular Poſition, we find it impoſſible to arrive at an exact Knowledge of their Number. But if they are formed into ſeparate Battalions, and ſo ſtationed, as to fall within the leiſure Survey of the Eye; by viewing them ſucceſſively and in order, we come to an eaſy and certain Determination. It is the ſame in our complex Ideas. When the original Perceptions, out of which they are framed, are very numerous; it is not enough that we take a View of them in looſe and ſcattered Bodies. We muſt form them into diſtinct Claſſes, and unite theſe Claſſes in a juſt and orderly Manner, before we can arrive at a true Knowledge of the compound Notions reſulting from them.

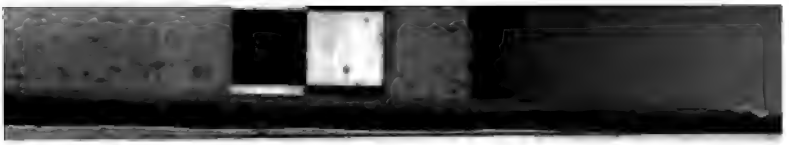
III. THIS

III. THIS gradual Progreſs of the Mind to its compound Notions, thro' a Variety of intermediate Steps, plainly points out the manner of conducting the Definitions, by which theſe Notions are conveyed into the Minds of others. For as the Series begins with ſimple and eaſy Combinations, and advances through a Succeſſion of different Orders, riſeing one above another in the Degree of Compoſition; it is evident that in a Train of Definitions expreſſing theſe Ideas, a like Gradation is to be obſerved. Thus the complex Ideas of the loweſt Order, can no otherwiſe be deſcribed, than by enumerating the ſimple Ideas out of which they are made, and explaining the manner of their Union. But then in the ſecond, or any ſucceeding Order; as they are formed out of thoſe gradual Combinations, that conſtitute the inferior Claſſes, it is not neceſſary in deſcribing them, to mention one by one, all the ſimple Ideas of which they conſiſt. They may be more diſtinctly and briefly unfolded, by enumerating the compound Ideas of a lower Order, from whoſe Union they reſult, and which are all ſuppoſed to be already known, in conſequence of previous Definitions. Here then it is, that the Logical Method of defining takes place; which that we may the better underſtand, I ſhall explain ſomewhat more particularly, the ſeveral Steps and Gradations of the Mind, in compounding its Ideas, and thence deduce that peculiar Form of a Definition, which Logicians have thought fit to eſtabliſh.

Our Definitions ought to keep pace with our Ideas, and obſerve a like Gradation.

IV. ALL the Ideas we receive, from the ſeveral Objects of Nature that ſurround us, repreſent diſtinct Individuals. Theſe Individuals when compared together, are found in certain Particulars to reſemble. Hence by collecting the reſembling Particulars into one Conception, we form the Notion of a *Species*. And here let it be obſerved, that this laſt Idea is leſs complicated, than that by which we repreſent any of the particular Objects contained under it. For the Idea of the Species excludes the Peculiarities of the ſeveral Individuals, and retains only ſuch Properties as are common to them all. Again, by comparing ſeveral Species together, and obſerving their Reſemblance, we form the Idea of a *Genus*; where in the ſame manner as before, the Compoſition is leſſened, becauſe we leave out what is peculiar to the ſeveral Species compared, and retain only the Particulars wherein they agree. It is eaſy to conceive the Mind, proceeding thus from one Step to another, and advancing through

The Steps by which the Mind proceeds from particular to general Ideas.



through its ſeveral Claſſes of general Notions, until at laſt it comes to the higheſt Genus of all, denoted by the Word *Being*, where the bare Idea of Exiſtence is only concerned.

The Conduct of the Mind in compounding its Ideas, as it advances thro' the different Orders of Perception.

V. IN this Procedure we ſee the Mind, unraveling a complex Idea, and tracing it in the aſcending Scale, from greater to leſs Degrees of Compoſition, until it terminates in one ſimple Perception. If now we take the Series the contrary Way, and beginning with the laſt or higheſt Genus, carry our View downwards, thro' all the inferior Genera and Species, quite to the Individuals, we ſhall thereby arrive at a diſtinct Apprehenſion, of the Conduct of the Underſtanding in compounding its Ideas, For in the ſeveral Claſſes of our Perceptions, the higheſt in the Scale, is for the moſt part made up, of but a few ſimple Ideas, ſuch as the Mind can take in and ſurvey with Eaſe. This firſt general Notion, when branched out into the different Subdiviſions contained under it, has in every one of them ſomething peculiar, by which they are diſtinguiſhed among themſelves; inſomuch that in deſcending from the Genus to the Species, we always ſuperadd ſome new Idea, and thereby increaſe the Degree of Compoſition. Thus the Idea denoted by the Word *Figure*, is of a very general Nature, and compoſed of but few ſimple Perceptions, as implying no more than Space every where bounded. But if we deſcend farther, and conſider the Boundaries of this Space, as that they may be either Lines or Surfaces, we fall into the ſeveral Species of Figure. For where the Space is bounded by one or more Surfaces, we give it the Name of a *ſolid Figure*; but where the Boundaries are Lines, it is called a *plain Figure*.

The Idea of the Species found by ſuperadding the ſpecifick Difference to the Genus.

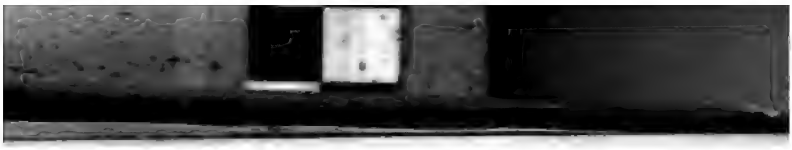
VI. IN this View of things it is evident, that the *Species* is formed by ſuperadding a new Idea to the *Genus*. Here for inſtance the Genus is circumſcribed Space. If now to this we ſuperadd the Idea of a Circumſcription by Lines, we frame the Notion of that Species of Figures which are called *plain*; but if we conceive the Circumſcription to be by Surfaces, we have the Species of *ſolid Figures*. This ſuperadded Idea is called the *ſpecifick Difference*, not only as it ſerves to divide the *Species* from the *Genus*, but becauſe being different in all the ſeveral Subdiviſions, we thereby alſo diſtinguiſh the *Species* one from another. And as it is likewiſe that Conception, which by being joined to the general Idea, compleats the Notion of the *Species*; hence it is

is plain, that the *Genus* and *ſpecifick Difference*, are to be conſidered as the proper and conſtituent Parts of the *Species*. If we trace the Progreſs of the Mind ſtill farther, and obſerve it advancing thro' the inferior Species, we ſhall find its manner of proceeding to be always the ſame. For every lower Species, is formed by ſuperadding ſome new Idea, to the Species next above it; inſomuch that in this deſcending Scale of our Perceptions, the Underſtanding paſſes thro' different Orders of complex Notions, which become more and more complicated at every Step it takes. Let us reſume here for inſtance, the Species of plain Figures. They imply no more than Space bounded by Lines. But if we take in an additional Conſideration of the Nature of theſe Lines, as whether they are *Right* or *Curves*, we fall into the Subdiviſions of plain Figure, diſtinguiſhed by the Names of *Rectilinear*, *Curvilinear*, and *Mixtilinear*.

And in all the inferior Species, by ſuperadding the ſpecifick Difference to the neareſt Genus.

VII. AND here we are to obſerve, that tho' plain Figures, when conſidered as one of thoſe Branches that come under the Notion of Figure in general, take the Name of a Species; yet compared with the Claſſes of Curvilinear, Rectilinear, and Mixtilinear, into which they themſelves may be divided, they really become a Genus, of which the before-mentioned Subdiviſions conſtitute the ſeveral Species. Theſe Species, in the ſame manner as in the Caſe of plain and ſolid Figures, conſiſt of the Genus and ſpecifick Difference as their conſtituent Parts. For in the *Curvilinear* Kind, the *Curvity* of the Lines bounding the Figure, makes what is called the *ſpecifick Difference*; to which if we join the Genus, which here is plain Figure, or Space circumſcribed by Lines, we have all that is neceſſary towards compleating the Notion of this Species. We are only to take Notice, that this laſt Subdiviſion, having two Genera above it, *viz. plain Figure*, and *Figure in general*; the Genus joined with the ſpecifick Difference, in order to conſtitute the Species of *Curvilinears*, is that which lies neareſt to the ſaid Species. It is the Notion of *plain Figure*, and not of *Figure in general*, that joined with the Idea of *Curvity*, makes up the complex Conception of *Curve-lined Figures*. For in this deſcending Scale of our Ideas, *Figure in general*, *plain Figures*, *Curve-lined Figures*, the two firſt are conſidered as Genera in reſpect of the third; and the ſecond in order, or that which ſtands next to the third, is called the *neareſt Genus*. But now as it is this ſecond Idea, which joined with the Notion of *Curvity*, forms the Species of *Curve-lined Figures*; it is plain, that the

third



third or laſt Idea in the Series, is made up of the *neareſt Genus* and *ſpecifick Difference*. This Rule holds invariably, however far the Series is continued; becauſe in a Train of Ideas thus ſucceeding one another, all that precede the laſt, are conſidered as ſo many Genera in reſpect of that laſt, and the laſt itſelf is always formed, by ſuperadding the ſpecifick Difference to the Genus next it.

The Idea of an Individual compoſed of the ſeveral Species and numerick Difference.

VIII. HERE then we have an univerſal Deſcription, applicable to all our Ideas of whatever kind, from the higheſt Genus to the loweſt Species. For taking them in order downwards from the ſaid general Idea, they every where conſiſt of the *Genus proximum*, and *Differentia ſpecifica*, as Logicians love to expreſs themſelves. But when we come to the loweſt Species of all, comprehending under it only Individuals, the ſuperadded Idea, by which theſe Individuals are diſtinguiſhed one from another, no longer takes the Name of the ſpecifick Difference. For here it ſerves not to denote diſtinct Species, but merely a Variety of Individuals, each of which having a particular Exiſtence of its own, is therefore *numerically* different from every other of the ſame Kind. And hence it is, that in this laſt Caſe, Logicians chuſe to call the ſuperadded Idea, by the Name of the *numerical Difference*; inſomuch that as the Idea of a Species, is made up of the *neareſt Genus* and *ſpecifick Difference*, ſo the Idea of an Individual, conſiſts of the *loweſt Species* and *numerick Difference*. Thus the Circle is a Species of Curve-lined Figures, and what we call the *loweſt Species*, as comprehending under it only Individuals. Circles in particular are diſtinguiſhed from one another by the Length and Poſition of their Diameters. The Length therefore and Poſition of the Diameter of a Circle, is what Logicians call the *numerical Difference*; becauſe theſe being given, the Circle itſelf may be deſcribed, and an Individual thereby conſtituted.

Definitions to follow one another in Train, and paſs thro' the ſame ſucceſſive Gradations as our compound Ideas.

IX. AND thus we have endeavoured to trace, in the beſt manner we are able, the Progreſs of the Mind in compounding its Ideas. It begins we ſee with the moſt general Notions, which conſiſting of but a few ſimple Notices, are eaſily combined and brought together into one Conception. Thence it proceeds to the Species comprehended under this general Idea, and theſe are formed by joining together the *Genus* and *ſpecifick Difference*. And as it often happens, that theſe Species may be ſtill farther ſubdivided, and run on in a long Series of continued Grada-

Gradations, producing various Orders of compound Perceptions; ſo all theſe ſeveral Orders, are regularly and ſucceſſively formed, by annexing in every Step, the *ſpecifick Difference* to the *neareſt Genus*. When by this Method of Procedure, we are come to the loweſt Order of all; by joining the *Species* and *numerick Difference*, we frame the Ideas of Individuals. And here the Series neceſſarily terminates, becauſe it is impoſſible any farther to bound or limit our Conceptions. This View of the Compoſition of our Ideas, repreſenting their conſtituent Parts in every Step of the Progreſſion, naturally points out the true and genuine Form of a Definition. For as Definitions are no more, than Deſcriptions of the Ideas, for which the Terms defined ſtand; and as Ideas are then deſcribed, when we enumerate diſtinctly and in Order, the Parts of which they conſiſt; it is plain that by making our Definitions follow one another, according to the natural Train of our Conceptions, they will be ſubject to the ſame Rules, and keep pace with the Ideas they deſcribe.

The Form of a Definition in all the various Orders of Conception.

X. As therefore the firſt Order of our compound Notions, or the Ideas that conſtitute the higheſt Genera, in the different Scales of Perception, are formed, by uniting together a certain Number of ſimple Notices; ſo the Terms expreſſing theſe Genera, are defined, *by enumerating the ſimple Notices ſo combined.* And as the Species comprehended under any Genus, or the complex Ideas of the ſecond Order, ariſe from ſuperadding the ſpecifick Difference, to the ſaid general Idea; ſo the Definition of the Names of the Species, is abſolved, *in a Detail of the Ideas of the ſpecifick Difference, connected with the Term of the Genus.* For the *Genus* having been before defined, the Term by which it is expreſſed, ſtands for a known Idea, and may therefore be introduced into all ſubſequent Definitions, in the ſame manner as the Names of ſimple Perceptions. It will now I think be ſufficiently obvious, that the Definitions of all the ſucceeding Orders of compound Notions, will every where conſiſt, *of the Term of the neareſt Genus, joined with an Enumeration of the Ideas that conſtitute the ſpecifick Difference*; and that the Definition of Individuals, *unites the Names of the loweſt Species, with the Terms by which we expreſs the Ideas of the numerick Difference.*

The Logical Method of defining perfect in its Kind.

XI. HERE then we have the true and proper Form of a Definition, in all the various Orders of Conception. This is that Method of Defining, which is commonly called *Logical*, and which we ſee is perfect in its kind, inaſmuch as it preſents a full and adequate

adequate Deſcription of the Idea, for which the Term defined ſtands. There are ſtill two Things worthy of Obſervation, before we take leave of this Subject. Firſt, that the very Frame and Contexture of theſe Definitions, points out the Order in which they ought to follow one another. For as the Name of the Genus is admitted into a Deſcription, only in conſequence of its having been before defined; it is evident, that we muſt paſs gradually, through all the different Orders of Conception. Accordingly, Logicians lay it down as a Rule, that we are to begin always with the higheſt Genus, and carry on the Series of Definitions regularly, through all the intermediate Genera and Species, quite down to the Individuals. By this means our Deſcriptions keep pace with our Ideas, and paſs through the ſame ſucceſſive Gradations; inſomuch that the Peruſal of them, muſt excite thoſe Ideas in the Underſtanding of another, in the very Order and Manner, in which they are put together by the Mind, in its uniform Advances from ſimple to the moſt complicated Notions. Now this is the true and proper End of Defining, and indeed the higheſt Perfection of that Art.

And applicable to all Words whatſoever, capable of a Definition.

XII. THERE is yet another Thing to be obſerved on this Head, namely; that the Form here preſcribed, is applicable to all Words whatſoever, capable of a Definition. For as every Term we uſe, muſt denote ſome Idea, either general or particular; and as all our complex Notions, relating to both theſe Claſſes of Perception, from the higheſt Genus, quite down to the Individuals, come within the Rules of Deſcription here given; it is evident, that this particular Manner of unfolding an Idea, may be extended to all the poſſible complex Conceptions, we can connect with our Words. By the Rules therefore of this Method, Definitions may be applied, to all Terms ſtanding for complex Ideas; and as theſe, by what we have ſhewn at large in the two foregoing Chapters, are the only definable Articles of Speech; it neceſſarily follows, that the Directions here given are univerſal, extend to all particular Inſtances, and are alike applicable in all Languages. And thus at length, we have not only deduced, that peculiar Form of a Definition which obtains among Logicians, but ſhewn it alſo to be perfect in its kind, and to take in the whole Compaſs of Language.

THE

THE ELEMENTS OF LOGICK.

BOOK II.

Of JUDGMENT, *or* INTUITION.

CHAP. I.

Of the Grounds of human Judgment.

Intuition reſpects the Relations between our Ideas when they are immediately perceiv'd.

I. WHEN the Mind is furniſhed with Ideas, its next Step in the Way to Knowledge is, the comparing theſe Ideas together, in order to judge of their Agreement or Diſagreement. In this joint View of our Ideas, if the Relation is ſuch, as to be immediately diſcoverable by the bare Inſpection of the Mind; the Judgments thence obtained are called *intuitive*; from a Word that denotes *to look at:* for in this Caſe, a mere Attention to the Ideas compared, ſuffices to let us ſee, how far they are connected or disjoined. Thus, *that the Whole is greater than any of its Parts*, is an intuitive Judgment, nothing more being required to convince us of its Truth, than an Attention to the Ideas of *Whole* and *Part*. And this too is the Reaſon, why

why we call the Act of the Mind forming theſe Judgments, *Intuition*; as it is indeed no more, than an immediate Perception of the Agreement or Diſagreement of any two Ideas.

Intuition and Demonſtration of Ground of Judgment as to Facts.

II. BUT here it is to be obſerved, that our Knowledge of this kind, reſpects only our Ideas, and the Relations between them; and therefore can ſerve only as a Foundation to ſuch Reaſonings, as are employed in inveſtigating theſe Relations. Now it ſo happens, that many of our Judgments are converſant about Facts, and the real Exiſtence of Things, which cannot be traced by the bare Contemplation of our Ideas. It does not follow, becauſe I have the Idea of a Circle in my Mind, that therefore a Figure anſwering to that Idea, has a real Exiſtence in Nature. I can form to myſelf the Notion of a Centaur, or golden Mountain, but never imagine on that account, that either of them exiſt. What then are the Grounds of our Judgment in relation to Facts? I anſwer, theſe two [illegible]. By *Experience* we are informed of the [illegible] objects which ſurround us, and operate [illegible]. *Teſtimony* is of a wider Extent, and reaches not only to objects beyond the preſent Sphere of our Obſervation, but alſo to Facts and Tranſactions, which being now paſt, and having no longer any Exiſtence, could not without this Conveyance, have fallen under our Cognizance.

Three Foundations of human Judgment, viz. 1. Intuition, the Ground of ſcientifical Knowledge.

III. HERE then we have three Foundations of human Judgment, from which the whole Syſtem of our Knowledge, may with Eaſe and Advantage be derived. Firſt *Intuition*, which reſpects our Ideas themſelves, and their Relations, and is the Foundation of that Species of Reaſoning, which we call *Demonſtration*. For whatever is deduced from our intuitive Perceptions, by a clear and connected Series of Proofs, is ſaid to be demonſtrated, and produces abſolute Certainty in the Mind. Hence the Knowledge obtained in this manner, is what we properly term *Science*; becauſe in every Step of the Procedure, it carries its own Evidence along with it, and leaves no room for Doubt or Heſitation. And what is highly worthy of Notice; as the Truths of this Claſs expreſs the Relations between our Ideas, and the ſame Relations muſt ever and invariably ſubſiſt between the ſame Ideas, our Deductions in the Way of Science, conſtitute what we call eternal, neceſſary, and immutable Truths. If it be true that the Whole is equal to all its Parts, it muſt be ſo unchangeably; becauſe the Relation of Equality being attached to the Ideas themſelves,

muſt

r intervene where the ſame Ideas are compared. Of re are all the Truths of natural Religion, Morality, and ıtics, and in general, whatever may be gathered from View and Conſideration of our Ideas.

2. *Experience, the Ground of our Knowledge, of the Powers and Qualities of Bodies.*

'HE ſecond Ground of human Judgment *ence*; from which we infer the Exiſtence ubjects that ſurround us, and fall under ediate Notice of our Senſes. When we un, or caſt our Eyes towards a Build- not only have Ideas of theſe Objects urſelves, but aſcribe to them a real Ex- ut the Mind. It is alſo by the Information of the hat we judge of the Qualities of Bodies; as when hat Snow is white, Fire hot, or Steel hard. For as wholly unacquainted with the internal Structure and ion of the Bodies that produce theſe Senſations in us, are unable to trace any Connection between that and the Senſations themſelves, it is evident, that our Judgments altogether upon Obſervation, aſ- Bodies ſuch Qualities, as are anſwerable to the Per- they excite in us. But this is not the only Advan- ed from Experience, for to that too are we indebted, r Knowledge regarding the Co-exiſtence of ſenſible in Objects, and the Operations of Bodies one upon Ivory for Inſtance is hard and elaſtic; this we know ence, and indeed by that alone. For being altoge- igers to the true Nature both of Elaſticity and Hard- cannot by the bare Contemplation of our Ideas de- ow far the one neceſſarily implies the other, or here may not be a Repugnance between them. But obſerve them to exiſt both in the ſame Object, we aſſured from Experience, that they are not incom- nd when we alſo find, that a Stone is hard and not d that Air though elaſtic is not hard, we alſo conclude ſame Foundation, that the Ideas are not neceſſarily , but may exiſt ſeparately in different Objects. In er with regard to the Operations of Bodies one upon t is evident, that our Knowledge this Way, is all om Obſervation. *Aqua Regia* diſſolves Gold, as found by frequent Trial, nor is there any other Way g at the Diſcovery. Naturaliſts may tell us, if they at the Parts of *Aqua Regia* are of a Texture apt to between the Corpuſcles of Gold, and thereby looſen them aſunder. If this is a true Account of the believe it will notwithſtanding be allowed, that

our Conjecture in regard to the Conformation of theſe Bodies, is deduced from the Experiment, and not the Experiment from the Conjecture. It was not from any previous Knowledge of the intimate Structure of *Aqua Regia* and *Gold*, and the Aptneſs of their Parts to act or be acted upon, that we came by the Concluſion abovementioned. The internal Conſtitution of Bodies is in a manner wholly unknown to us; and could we even ſurmount this Difficulty, yet as the Separation of the Parts of Gold, implies ſomething like an active Force in the *Menſtruum*, and we are unable to conceive how it comes to be poſſeſſed of this Activity; the Effect muſt be owned to be altogether beyond our Comprehenſion. But when repeated Trials had once confirmed it, inſomuch that it was admitted as an eſtabliſhed Truth in natural Knowledge, it was then eaſy for Men to ſpin out Theories of their own Invention, and contrive ſuch a Structure of Parts, both for *Gold* and *Aqua Regia*, as would beſt ſerve to explain the Phænomenon, upon the Principles of that Syſtem of Philoſophy they had adopted. I might eaſily ſhew from innumerable other Inſtances, how much our Knowledge, of the mutual Action of Bodies, depends upon Obſervation. The Bite of a Viper will kill. Plants are ſome ſalutary, others noxious. Fire diſſolves one Body and hardens another. Theſe are Truths generally known, nor is it leſs evident, that we owe their Diſcovery wholly to Experience.

Why many uſeful Inventions owe their Birth to Chance.

V. AND hence it is eaſy to account for what to ſome Writers has appeared a very great Paradox; that many of the moſt important Inventions in human Life, have taken their Riſe from Chance, and inſtead of coming out of the Schools of Philoſophers, are for the moſt part aſcribed to Men of no Figure in the Commonwealth of Learning. Sowing, Planting, the Uſe of the Compaſs, and ſuch like, are not Deductions of human Reaſon, but Diſcoveries which owe their Birth to Obſervation and Trial. No Wonder therefore, if theſe Inventions derived their Beginning, from ſuch as being engaged in the active and buſy Scenes of Life, were more in the Way of thoſe Experiments, which lead to Diſcoveries of this Nature. And here, as the particular Callings and Profeſſions of Men, and oft-times Chance, has a great Aſcendant, it needs not ſeem ſtrange, if ſome of the moſt uſeful Arts in Society, appear to have had an Original purely caſual.

Natural Knowledge from the

VI. FROM what has been ſaid it is evident, that as Intuition is the Foundation of what we call *ſcientifical* Knowledge, ſo is Experience of

natural.

natural. For this laſt, being wholly taken up with Objects of Senſe, or thoſe Bodies that conſtitute the natural World: and their Properties, as far as we can diſcover them, being to be traced only by a long and painful Series of Obſervations; it is apparent, that in order to improve this Branch of Knowledge, we muſt betake ourſelves to the Method of Trial and Experiment. Accordingly we find, that while this was neglected, little Advance was made in the Philoſophy of Nature; whereas a contrary Proceeding, has enriched the preſent Age, with many valuable Diſcoveries; inſomuch that natural Knowledge, in Alluſion to the Foundation on which it ſtands, has been very aptly called *Experimental Philoſophy.*

Ground on which it reſts, aptly termed experimental Philoſophy.

VII. BUT though Experience, is what we may term the immediate Foundation of natural Knowledge, yet with reſpect to particular Perſons, its Influence is very narrow and confined. The Bodies that ſurround us are numerous, many of them lie at a great Diſtance, and ſome quite beyond our Reach. Life too is ſhort, and ſo crouded with Cares, that but little Time is left for any ſingle Man, to employ himſelf in unfolding the Myſteries of Nature. Hence it is neceſſary, to admit many Things upon the Teſtimony of others, which by this Means becomes the Foundation of a great Part of our Knowledge of Body. No Man doubts of the Power of *Aqua Regia* to diſſolve Gold, though perhaps he never himſelf made the Experiment. In theſe therefore and ſuch like Caſes, we judge of the Facts and Operations of Nature, upon the mere Ground of Teſtimony. However, as we can always have recourſe to Experience, where any Doubt or Scruple ariſes, this is juſtly conſidered as the true Foundation of natural Philoſophy; being indeed the ultimate Support upon which our Aſſent reſts, and whereto we appeal, when the higheſt Degree of Evidence is required.

Tho' much of our Knowledge of Body depends on Teſtimony, yet Experience is the ultimate Foundation of it.

VIII. BUT there are many Facts that will not allow of an Appeal to the Senſes, and in this Caſe Teſtimony is the true and only Foundation of our Judgments. All human Actions of whatever Kind, when conſidered as already paſt, are of the Nature here deſcribed; becauſe having now no longer any Exiſtence, both the Facts themſelves, and the Circumſtances attending them, can be known only from the Relations of ſuch, as had ſufficient Opportunities of arriving at the Truth. *Teſtimony* therefore is juſtly accounted a third Ground of human Judgment; and as from the other two we have deduced

3. *Teſtimony the Ground of Hiſtorical Knowledge.*

ſcientifical and *natural* Knowledge, ſo may we from this derive *hiſtorical*; by which I would be underſtood to mean, not merely a Knowledge of the civil Tranſactions of States and Kingdoms, but of all Facts whatſoever, where Teſtimony is the ultimate Foundation of our Belief.

The ſecond Operation of the Mind, commonly extended beyond Intuition.

IX. BEFORE I conclude this Chapter, it will be neceſſary to obſerve; that though the ſecond Operation of the Mind properly ſpeaking, extends not beyond intuitive Perceptions, yet Logicians have not confined themſelves to ſo ſtrict a View of it; but calling it by the Name *Judgment*, thereby denote all the Acts of the Mind, where only two Ideas are compared, without the immediate Interpoſition of a third. For when the Mind joins or ſeparates two Ideas, though perhaps this is done, in conſequence of a Train of previous Reaſoning; yet if the Underſtanding proceeds upon eſtabliſhed Notions, without attending to that Train of Reaſoning, its Determinations are ſtill conſidered as Acts of Judgment. Thus, *that God created the Univerſe*, that *Men are accountable for their Actions*, are frequently mentioned by Logicians, as Inſtances of the Mind judging. And yet it is apparent that theſe Judgments are by no means of the Kind we call intuitive; nay that it requires much Exerciſe of the reaſoning Faculty, before a Man can trace their Connection, with the Perceptions of that Name. I could in the ſame Manner eaſily ſhew, that even our Judgments of Experience and Teſtimony, when purſued to their Source, derive all their Power of Perſuaſion, from being linked with intuitive Truths. But I ſhall wave this Enquiry for the preſent, as being of a Nature too ſubtile for a Work of this Kind. The Remark itſelf however was needful, as well to illuſtrate the proper Diſtinction beween the Powers of the Underſtanding, as to explain the Reaſon why in this Part of Logick, we extend the ſecond Operation of the Mind, beyond thoſe Limits that in Strictneſs of Speech belong to it. Let us now proceed to conſider a little more particularly, the Nature and Variety of theſe our Judgments.

CHAP. II.

Of Affirmative and Negative Propoſitions.

The Subject and Predicate of a Propoſition explained.

I. WHILE the comparing of our Ideas, is conſidered merely as an Act of the Mind, aſſembling them together, and joining or disjoining

disjoining them according to the Reſult of its Perceptions, we call it *Judgment*; but when our Judgments are put into Words, they then bear the Name of *Propoſitions*. A Propoſition therefore is a Sentence expreſſing ſome Judgment of the Mind, whereby two or more Ideas are affirmed to agree or diſagree. Now as our Judgments include at leaſt two Ideas, one of which is affirmed or denied of the other, ſo muſt a Propoſition have Terms anſwering to theſe Ideas. The Idea of which we affirm or deny, and of courſe the Term expreſſing that Idea, is called the *Subject* of the Propoſition. The Idea affirmed or denied, as alſo the Term anſwering it, is called the *Predicate*. Thus in the Propoſition, *God is omnipotent: God* is the Subject, it being of him that we affirm Omnipotence; and *omnipotent* is the Predicate, becauſe we affirm the Idea expreſſed by that Word to belong to God.

The Copula, &c.

II. BUT as in Propoſitions, Ideas are either joined or disjoined; it is not enough to have Terms expreſſing thoſe Ideas, unleſs we have alſo ſome Words to denote their Agreement or Diſagreement. That Word in a Propoſition, which connects two Ideas together, is called the *Copula*; and if a negative Particle be annexed, we thereby underſtand that the Ideas are disjoined. The *Subſtantive Verb*, is commonly made uſe of for the Copula, as in the above-mentioned Propoſition, *God is omnipotent*; where *is* repreſents the Copula, and ſignifies the Agreement of the Ideas of *God* and *Omnipotence*. But if we mean to ſeparate two Ideas; then, beſides the ſubſtantive Verb, we muſt alſo uſe ſome Particle of Negation, to expreſs this Repugnance. The Propoſition, *Man is not perfect*; may ſerve as an Example of this Kind, where the Notion of *Perfection*, being removed from the Idea of *Man*, the negative Particle *not* is inſerted after the Copula, to ſignify the Diſagreement between the Subject and Predicate.

Propoſitions ſometimes expreſſed by a ſingle Word.

III. EVERY Propoſition neceſſarily conſiſts of theſe three Parts, but then it is not alike needful that they be all ſeverally expreſſed in Words; becauſe the Copula is often included in the Term of the Predicate, as when we ſay, *he ſits*; which imports the ſame as *he is ſitting*. In the *Latin* Language, a ſingle Word has often the Force of a whole Sentence. Thus *ambulat* is the ſame, as *ille eſt ambulans*; *amo*, as *ego ſum amans*, and ſo innumerable other Inſtances; by which it appears, that we are not ſo much to regard the Number of Words in a Sentence, as the Ideas they repreſent, and the Manner in which they are put together. For wherever two Ideas are

joined or disjoined in an Expreſſion, though of but a ſingle Word, it is evident that we have a Subject, Predicate, and Copula, and of conſequence a compleat Propoſition.

Affirmative and negative Propoſitions.

IV. WHEN the Mind joins two Ideas, we call it an *affirmative* Judgment; when it ſeparates them, a *negative*; and as any two Ideas compared together, muſt neceſſarily either agree or not agree, it is evident, that all our Judgments fall under theſe two Diviſions. Hence likewiſe the Propoſitions expreſſing theſe Judgments, are all either affirmative or negative. An affirmative Propoſition connects the Predicate with the Subject, as *a Stone is heavy*; a negative Propoſition ſeparates them, as *God is not the Author of Evil. Affirmation* therefore is the ſame as joining two Ideas together, and this is done by means of the Copula. *Negation* on the contrary marks a Repugnance between the Ideas compared, in which Caſe a negative Particle muſt be called in, to ſhew that the Connection included in the Copula does not take place.

When the negative Particle regards the diſjoin Ideas.

V. AND hence we ſee the Reaſon of the Rule commonly laid down by Logicians; that in all negative Propoſitions, the Negation ought to affect the Copula. For as the Copula, when placed by itſelf, between the Subject and the Predicate, manifeſtly binds them together; it is evident, that in order to render a Propoſition negative, the Particle of Negation muſt enter it in ſuch manner, as to deſtroy this Union. In a word, then only are two Ideas diſjoined in a Propoſition, when the negative Particle may be ſo referred to the Copula, as to break the Affirmation included in it, and undo that Connection it would otherwiſe eſtabliſh. When we ſay for inſtance, *No Man is perfect*; take away the Negation, and the Copula of itſelf, plainly unites the Ideas in the Propoſition. But as this is the very Reverſe of what is intended, a negative Mark is added, to ſhew that this Union does not here take place. The Negation therefore, by deſtroying the Effect of the Copula, changes the very Nature of the Propoſition, inſomuch that inſtead of binding two Ideas together, it denotes their Separation. On the contrary, in this Sentence; *The Man who departs not from an upright Behaviour, is beloved of God:* the Predicate *beloved of God*, is evidently affirmed of the Subject *an upright Man*, ſo that notwithſtanding the negative Particle, the Propoſition is ſtill affirmative. The Reaſon is plain; the Negation here affects not the Copula, but making properly a Part of the Subject, ſerves with other Terms in the Sentence, to form one complex Idea, of which the Predicate

beloved

beloved of God, is directly affirmed. This perhaps to ſome may appear a mere Logical Refinement, contrived to juſtify the Scholaſtic Rule for diſtinguiſhing between affirmative and negative Propoſitions. But if it be conſidered, that this Diſtinction is of great Importance in Reaſoning, and cannot in many Caſes be made with Certainty, but by means of the Criterion here given, the Reader will ſee ſufficient Reaſon for my taking ſo much Pains to illuſtrate it.

How a Copula comes to be Part of a negative Propoſition.

VI. PERHAPS it may ſtill appear a Myſtery, how a Copula can be ſaid to be a Part of a negative Propoſition, whoſe proper Buſineſs it is to disjoin Ideas. This Difficulty however will vaniſh, if we call to mind, that every Judgment implies a direct Affirmation, and that this Affirmation alone makes the true Copula in a Propoſition. But as our Affirmations are of two Kinds, *viz.* either of Agreement or of Diſagreement, between the Ideas compared; hence there is alſo a twofold Expreſſion of our Judgments. In the Caſe of Agreement, the Copula alone ſuffices, becauſe it is the proper Mark whereby we denote an Identity or Conjunction of Ideas. But where Perceptions diſagree, there we muſt call in a negative Particle; and this gives us to underſtand, that the Affirmation implied in the Copula, is not of any Connection between the Subject and Predicate, but of their mutual Oppoſition and Repugnance.

CHAP. III.

Of Univerſal and Particular Propoſitions.

Diviſion of Propoſitions into univerſal and particular.

I. THE next conſiderable Diviſion of Propoſitions, is into *univerſal* and *particular*. Our Ideas, according to what has been already obſerved in the firſt Part, are all ſingular as they enter the Mind, and repreſent individual Objects. But as by Abſtraction we can render them univerſal, ſo as to comprehend a whole Claſs of Things, and ſometimes ſeveral Claſſes at once; hence the Terms expreſſing theſe Ideas, muſt be in like manner univerſal. If therefore we ſuppoſe any general Term to become the Subject of a Propoſition, it is evident, that whatever is affirmed of the abſtract Idea belonging to that Term, may be affirmed of all the Individuals to which that Idea extends. Thus when we

ſay *Men are mortal*; we conſider Mortality, not as confined to one or any Number of particular Men, but as what may be affirmed without Reſtriction of the whole Species. By this means the Propoſition becomes as general as the Idea which makes the Subject of it, and indeed derives its Univerſality entirely from that Idea, being more or leſs ſo, according as this may be extended to more or fewer Individuals. But it is further to be obſerved of theſe general Terms, that they ſometimes enter a Propoſition in their full Latitude, as in the Example given above; and ſometimes appear with a Mark of Limitation. In this laſt Caſe we are given to underſtand, that the Predicate agrees not to the whole univerſal Idea, but only to a Part of it; as in the Propoſition, *ſome Men are wiſe*: for here Wiſdom is not affirmed of every particular Man, but reſtrained to a few of the human Species.

Propoſitions in which the whole Subject is taken, without any Mark of Reſtriction.

II. Now from this different Appearance of the general Idea, that conſtitutes the Subject of any Judgment, ariſes the Diviſion of Propoſitions into *univerſal* and *particular*. An *univerſal* Propoſition is that, wherein the Subject is ſome general Term taken in its full Latitude, inſomuch that the Predicate agrees to all the Individuals comprehended under it, if it denotes a proper Species; and to all the ſeveral Species, and their Individuals, if it marks an Idea of a higher Order. The Words *all*, *every*, *no*, *none*, &c. are the proper Signs of this Univerſality; and as they ſeldom fail to accompany general Truths, ſo they are the moſt obvious Criterion whereby to diſtinguiſh them. *All Animals have a Power of beginning Motion.* This is an univerſal Propoſition; as we know from the Word *all*, prefixed to the Subject *Animal*, which denotes that it muſt be taken in its full Extent. Hence the Power of beginning Motion, may be affirmed of all the ſeveral Species of Animals; as of Birds, Quadrupeds, Inſects, Fiſhes, &c. and of all the Individuals of which theſe different Claſſes conſiſt, as of this Hawk, that Horſe, and ſo for others.

Propoſitions in which a particular where the whole Subject is taken, with a Mark of Limitation.

III. A *particular* Propoſition has in like manner ſome general Term for its Subject, but with a Mark of Limitation added, to denote, that the Predicate agrees only to ſome of the Individuals comprehended under a Species, or to one or more of the Species belonging to any Genus, and not to the whole univerſal Idea. Thus, *Some Stones are heavier than Iron*; *Some Men have an uncommon Share of Prudence.* In the laſt of theſe Propoſitions, the Subject *ſome Men*, implies only a certain Number of Individuals, comprehended under

under a ſingle Species. In the former, where the Subject is a Genus, that extends to a great Variety of diſtinct Claſſes, *ſome Stones* may not only imply, any Number of particular Stones, but alſo ſeveral whole Species of Stones; inaſmuch as there may be not a few, with the Property there deſcribed. Hence we ſee, that a Propoſition does not ceaſe to be particular, by the Predicate's agreeing to a whole Species, unleſs that Species ſingly and diſtinctly conſidered, makes alſo the Subject of which we affirm or deny. For if it belongs to ſome Genus, that has other Species under it, to which the Predicate does not agree; it is plain that where this Genus is that of which we affirm or deny, the Predicate agreeing only to a Part of it, and not to the whole general Idea, conſtitutes the Propoſition particular.

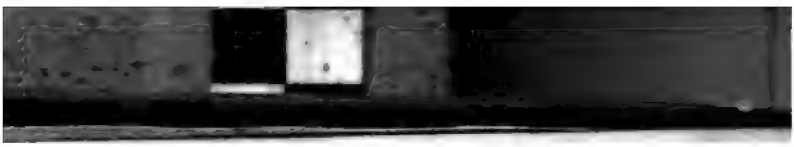
A ſure and infallible Criterion, whereby to diſtinguiſh between univerſal and particular Propoſitions.

IV. HERE then we have a ſure and infallible Mark, whereby to diſtinguiſh between univerſal and particular Propoſitions. Where the Predicate agrees to all the Individuals comprehended under the Notion of the Subject, there the Propoſition is univerſal; where it belongs only to ſome of them, or to ſome of the Species of the general Idea, there the Propoſition is particular. This Criterion is of eaſy Application, and much ſafer than to depend upon the common Signs of *all*, *every*, *ſome*, *none*, &c. becauſe theſe being different in different Languages, and often varying in their Signification, are very apt in many Caſes to miſlead the Judgment. Thus if we ſay, *all the Soldiers, when drawn up, formed a Square of a hundred Men a Side*: it is evident, that the Predicate cannot be affirmed of the ſeveral Individuals, but of the whole collective Idea of the Subject; whence by the Rule given above, the Propoſition is not univerſal. It is true, Logicians lay down many Obſervations, to enable us to diſtinguiſh aright on this Head; but if the Criterion here given be duly attended to, it will be of more real Service to us than a hundred Rules. For it is infallible, and may be applied with Eaſe; whereas the Directions which we meet with in Treatiſes of Logick, being drawn for the moſt part from the Analogy of Language, and common Forms of Speech, are not only burdenſome to the Memory, but often very doubtful and uncertain in their Application.

Singular Propoſitions contained under the Idea of Particulars.

V. THERE is ſtill one Species of Propoſitions, that remains to be deſcribed; and which the more deſerve our Notice, as it is not yet agreed among Logicians, to which of the two Claſſes mentioned above, they ought to be referred. I mean *ſingular*

Propo-



Propoſitions; or thoſe where the Subject is an Individual. Of this Nature are the following: *Sir* Iſaac Newton *was the Inventor of Fluxions*; *This Book contains many uſeful Truths.* What occaſions ſome Difficulty, as to the proper Rank of theſe Propoſitions, is; that the Subject being taken according to the whole of its Extenſion, they ſometimes have the ſame Effect in Reaſoning, as Univerſals. But if it be conſidered, that they are in Truth the moſt limited Kind of particular Propoſitions, and that no Propoſition can with any Propriety be called univerſal, but where the Subject is ſome univerſal Idea; we ſhall not be long in determining, to which Claſs they ought to be referred. When we ſay, *Some Books contain uſeful Truths*; the Propoſition is particular, becauſe the general Term appears with a Mark of Reſtriction. If therefore we ſay, *This Book contains uſeful Truths*; it is evident that the Propoſition muſt be ſtill more particular, as the Limitation implied in the Word *this*, is of a more confined Nature, than in the former Caſe. I know there are Inſtances, where ſingular Propoſitions have the ſame Effect in Reaſoning, as Univerſals; yet is not this, by reaſon of any proper Univerſality, belonging to them; but becauſe the Concluſion in ſuch Caſes being always ſingular, may be proved by a middle Term which is alſo ſingular; as I could eaſily demonſtrate, were this a proper Place, for entering into a Diſcuſſion of that Nature.

The fourfold Diviſion of Propoſitions.

VI. WE ſee therefore, that all Propoſitions, are either *affirmative* or *negative*; nor is it leſs evident, that in both Caſes, they may be *univerſal* or *particular*. Hence ariſes, that celebrated fourfold Diviſion of them, into *univerſal Affirmative*, and *univerſal Negative*; *particular Affirmative*, and *particular Negative*; which comprehends indeed all their Varieties. The Uſe of this Method of diſtinguiſhing them, will appear more fully afterwards, when we come to treat of Reaſoning and Syllogiſm.

CHAP. IV.

Of Abſolute and Conditional Propoſitions.

Diſtinction of Subjects into eſſential and accidental.

I. THE Objects about which we are chiefly converſant in this World, are all of a Nature liable to Change. What may be affirmed of them at one time, cannot often at another; and it makes no ſmall Part of our Knowledge, to diſtinguiſh

iſh rightly theſe Variations, and trace the Reaſons upon hey depend. For it is obſervable, that amidſt all the ıde of Nature, ſome things remain conſtant and in- :; nor even are the Changes to which we ſee others effected, but in conſequence of uniform and ſteady which when known are ſufficient to direct us in our ents about them. Hence Philoſophers, in diſtinguiſhing jects of our Perception into various Claſſes, have been reful to note; that ſome Properties belong eſſentially to ieral Idea, ſo as not to be ſeparable from it, but by de- ; its very Nature; while others are only accidental, ay be affirmed or denied of it, in different Circum- . Thus, Solidity, a yellow Colour, and great Weight, ıſidered as eſſential Qualities of Gold; but whether it tiſt as an uniform conjoined Maſs, is not alike neceſſary. e that by a proper Menſtruum, it may be reduced to a ıwder, and that an intenſe Heat will bring it into a State ion.

Hence a conſiderable Diverſity in our Manner of Judging.

Now from this Diverſity in the ſeveral Qua- ɔf Things, ariſes a conſiderable Difference ıe Manner of our judging about them. For firſt place, all ſuch Properties, as are inſe- : from Objects, when conſidered as belong- any Genus or Species, are affirmed abſo- and without Reſerve of that general Idea. Thus we *Gold is very weighty, a Stone is hard, Animals have ver of Self-motion.* But in the Caſe of mutable or ac- al Qualities, as they depend upon ſome other Conſidera- diſtinct from the general Idea; that alſo muſt be taken he Account, in order to form an accurate Judgment. l we affirm for inſtance of ſome Stones, that they are very :ible of a rolling Motion; the Propoſition while it re- in this general Form, cannot with any Advantage be uced into our Reaſonings. An Aptneſs to receive that of Motion, flows from the Figure of the Stone; which may vary infinitely: our Judgment then only becomes able and determinate, when the particular Figure, of Volubility is a Conſequence, is alſo taken into the ınt. Let us then bring in this other Conſideration, and ·opoſition will run as follows: *Stones of a ſpherical Form, ſily put into a rolling Motion.* Here we ſee the Condition which the Predicate is affirmed, and therefore know in particular Caſes the Propoſition may be applied.

Which gives riſe to the Diviſion of

THIS Conſideration of Propoſitions, reſpect- ıe Manner in which the Predicate is affirmed Subject, gives riſe to the Diviſion of them

into

Propoſitions into abſolute and conditional.

into *abſolute* and *conditional*. *Abſolute* Propoſitions are thoſe, wherein we affirm ſome Property inſeparable from the Idea of the Subject, and which therefore belongs to it in all poſſible Caſes; as *God is infinitely wiſe. Virtue tends to the ultimate Happineſs of Man.* But where the Predicate is not neceſſarily connected with the Idea of the Subject, unleſs upon ſome Conſideration diſtinct from that Idea, there the Propoſition is called *conditional*. The Reaſon of the Name is taken from the Suppoſition annexed, which is of the Nature of a Condition, and may be expreſſed as ſuch. Thus; *If a Stone is expoſed to the Rays of the Sun, it will contract ſome Degree of Heat. If a River runs in a very declining Channel, its Rapidity will conſtantly increaſe.*

The great Importance of this Diviſion, and of the Propoſitions it comprehends.

IV. THERE is not any thing of greater Importance in Philoſophy, than a due Attention to this Diviſion of Propoſitions. If we are careful never to affirm Things abſolutely, but where the Ideas are inſeparably conjoined; and if in our other Judgments, we diſtinctly mark the Conditions, which determine the Predicate to belong to the Subject; we ſhall be the leſs liable to miſtake, in applying general Truths, to the particular Concerns of human Life. It is owing to the exact Obſervance of this Rule, that Mathematicians have been ſo happy in their Diſcoveries; and that what they demonſtrate of Magnitude in general, may be applied with Eaſe in all obvious Occurrences.

And reduces them from Particulars to Generals.

V. THE Truth of it is, particular Propoſitions are then known to be true, when we can trace their Connection with Univerſals; and it is accordingly the great Buſineſs of Science, to find out general Truths, that may be applied with Safety in all obvious Inſtances. Now the great Advantage ariſing, from determining with Care the Conditions, upon which one Idea may be affirmed or denied of another, is this; that thereby particular Propoſitions really become univerſal, may be introduced with Certainty into our Reaſonings, and ſerve as Standards to conduct and regulate our Judgments. To illuſtrate this by a familiar Inſtance. If we ſay, *Some Water acts very forcibly*; the Propoſition is particular: and as the Conditions on which this forcible Action depends, are not mentioned, it is as yet uncertain in what Caſes it may be applied. Let us then ſupply theſe Conditions, and the Propoſition will run thus; *Water conveyed in ſufficient Quantity, along a ſteep Deſcent, acts very forcibly.* Here we have an univerſal Judgment, inaſmuch as the Predicate *forcible Action*, may be aſcribed

aſcribed to all Water under the Circumſtances mentioned. Nor is it leſs evident, that the Propoſition in this new Form, is of eaſy Appliation; and in fact we find, that Men do apply it, in Inſtances where the forcible Action of Water is required; as in Corn-Mills, and many other Works of Art. Thus we ſee in what manner we are to proceed, in order to arrive at univerſal Truths, which is the great End and Aim of Science. And indeed, would Men take the ſame Care, duly to expreſs the Conditions on which they affirm and deny, as Mathematicians do, in thoſe Theorems which they term hypothetical; I doubt not, but we might be able to deduce many Truths, in other Parts of Philoſophy, with no leſs Clearneſs, Force, and Perſpicuity, than has hitherto been thought peculiar to the Science of Quantity.

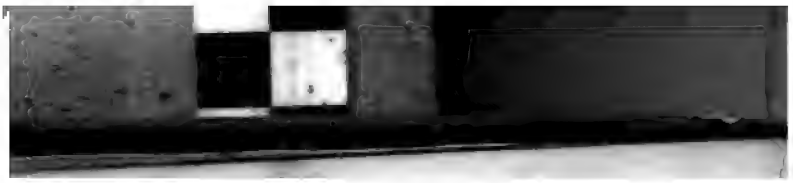
CHAP. V.

Of Simple and Compound Propoſitions.

Diviſion of Propoſitions into ſimple and compound.

I. HITHERTO we have treated of Propoſitions, where only two Ideas are compared togeter. Theſe are in the general called *ſimple*; becauſe having but one Subject and one Predicate, they are the Effect of a ſimple Judgment, that admits of no Subdiviſion. But if it ſo happens, that ſeveral Ideas offer themſelves to our Thoughts at once, whereby we are led to affirm the ſame thing of different Objects, or different Things of the ſame Object; the Propoſitions expreſſing theſe Judgments are called *compound:* becauſe they may be reſolved into as many others, as there are Subjects or Predicates, in the whole complex Determination of the Mind. Thus: *God is infinitely wiſe, and infinitely powerful.* Here there are two Predicates, *infinite Wiſdom, and infinite Power,* both affirmed of the ſame Subject; and accordingly, the Propoſition may be reſolved into two others, affirming theſe Predicates ſeverally. In like manner in the Propoſition, *Neither Kings nor People are exempt from Death*; the Predicate is denied of both Subjects, and may therefore be ſeparated from them, in diſtinct Propoſitions. Nor is it leſs evident, that if a complex Judgment conſiſts of ſeveral Subjects and Predicates, it may be reſolved into as many ſimple Propoſitions as are the Number of different Ideas compared together. *Riches and Honours, are apt to elate the Mind, and increaſe the Number*

of



of our Desires. In this Judgment, there are two Subjects and two Predicates, and it is at the same time apparent, that it may be resolved into four distinct Propositions. *Riches are apt to elate the Mind. Riches are apt to increase the Number of our Desires.* And so of Honours.

The simple Nature of a compound Proposition not attended to.

II. LOGICIANS have divided these compound Propositions, into a great many different Classes; but in my Opinion, not with a due Regard to their proper Definition. Thus *Conditionals*, *Causals*, *Relatives*, &c. are mentioned as so many distinct Species of this kind, though in fact they are no more than simple Propositions. To give an Instance of a Conditional: *If a Stone is exposed to the Rays of the Sun, it will contract some Degree of Heat.* Here we have but one Subject and one Predicate; for the complex Expression, *A Stone exposed to the Rays of the Sun*, constitutes the proper Subject of this Proposition, and is no more than one determinate Idea. The same thing happens in Causals. Rehoboam *was unhappy because he followed evil Counsel.* I deny not that there is here an Appearance of two Propositions, arising from the Complexity of the Expression; but when we come to consider the Matter more nearly, it is evident, that we have but a single Subject and Predicate. *The Pursuit of evil Counsel brought Misery upon* Rehoboam. It is not enough therefore to render a Proposition compound, that the Subject and Predicate are complex Notions, requiring sometimes a whole Sentence to express them: for in this Case, the Comparison is still confined to two Ideas, and constitutes what we call a simple Judgment. But where there are several Subjects, or Predicates, or both, as the Affirmation or Negation may be alike extended to them all, the Proposition expressing such a Judgment, is truly a Collection of as many simple ones, as there are different Ideas compared. Confining ourselves therefore, to this more strict and just Notion of compound Propositions, they are all reducible to two Kinds, viz. *Copulatives* and *Disjunctives*.

Compound Propositions either Copulative or Disjunctive.

III. A *Copulative* Proposition is, where the Subjects and Predicates are so linked together, that they may be all severally affirmed or denied one of another. Of this Nature are the Examples of compound Propositions given above. *Riches and Honours are apt to elate the Mind, and increase the Number of our Desires. Neither Kings nor People are exempt from Death.* In the first of these the two Predicates may be affirmed severally of each Subject, whence we have four distinct Propositions. The other furnishes an Example of the negative

Kind, where the ſame Predicate being disjoined from both Subjects, may be alſo denied of them in ſeparate Propoſitions.

IV. THE other Species of compound Propoſitions, are thoſe called Disjunctives; in which, comparing ſeveral Predicates with the ſame Subject, we affirm that one of them neceſſarily belongs to it, but leave the particular Predicate undetermined. If any one for example ſays: *This World either exiſts of itſelf, or is the Work of ſome all-wiſe and powerful Cauſe*; it is evident, that one of the two Predicates muſt belong to the World; but as the Propoſition determines not which, it is therefore of the kind we call *Disjunctive*. Such too are the following. *The Sun either moves round the Earth, or is the Center about which the Earth revolves. Friendſhip finds Men equal, or makes them ſo.* It is the Nature of all Propoſitions of this Claſs, ſuppoſing them to be exact in Point of Form; that upon determining the particular Predicate, the reſt are of courſe to be removed; or if all the Predicates but one are removed, that one neceſſarily takes place. Thus in the Example given above; if we allow the World to be the Work of ſome wiſe and powerful Cauſe, we of courſe deny it to be ſelf-exiſtent; or if we deny it to be ſelf-exiſtent, we muſt neceſſarily admit that it was produced by ſome wiſe and powerful Cauſe. Now this particular Manner of linking the Predicates together, ſo that the eſtabliſhing one, diſplaces all the reſt; or the excluding all but one, neceſſarily eſtabliſhes that one; cannot otherwiſe be effected, than by means of *disjunctive* Particles. And hence it is, that Propoſitions of this Claſs, take their Name from theſe Particles, which make ſo neceſſary a Part of them, and indeed conſtitute their very Nature, conſidered as a diſtinct Species. But I ſhall reſerve what farther might be ſaid on this Head, till I come to treat of Reaſoning, where the great Uſe and Importance of disjunctive Propoſitions, will better appear.

Or Disjunctive.

CHAP. VI.

Of the Diviſion of Propoſitions into Self-evident and Demonſtrable.

I. AS we are ſoon to enter upon the third Part of Logick which treats of Reaſoning, and as the Art of Reaſoning lies, in deducing Propoſitions whoſe Truth does not immediately appear, from others more

Deſign of this Chapter.

more known; it will be proper before we proceed any farther, to examine a little the different Degrees of Evidence that accompany our Judgments; that we may be the better able to diſtinguiſh, in what Caſes we ought to have recourſe to Reaſoning, and what thoſe Propoſitions are, upon which as a ſure and unerring Foundation, we may venture to build the Truth of others.

Propoſitions diſtinguiſhed into ſelf-evident and demonſtrable.

II. WHEN any Propoſition is offered to the View of the Mind, if the Terms in which it is expreſſed are underſtood; upon comparing the Ideas together, the Agreement or Diſagreement aſſerted is either immediately perceived, or found to lie beyond the preſent Reach of the Underſtanding. In the firſt Caſe the Propoſition is ſaid to be *ſelf-evident*, and admits not of any Proof, becauſe a bare Attention to the Ideas themſelves, produces full Conviction and Certainty; nor is it poſſible to call in any thing more evident, by way of Confirmation. But where the Connection or Repugnance comes not ſo readily under the Inſpection of the Mind, there we muſt have recourſe to Reaſoning; and if by a clear Series of Proofs we can make out the Truth propoſed, inſomuch that Self-evidence ſhall accompany every Step of the Procedure, we are then able to demonſtrate what we aſſert, and the Propoſition itſelf is ſaid to be *demonſtrable*. When we affirm for inſtance, *that it is impoſſible for the ſame thing to be and not to be*; whoever underſtands the Terms made uſe of, perceives at firſt Glance the Truth of what is aſſerted; nor can he by any Efforts, bring himſelf to believe the contrary. The Propoſition therefore is *ſelf-evident*, and ſuch, that it is impoſſible by Reaſoning to make it plainer; becauſe there is no Truth more obvious, or better known, from which as a Conſequence it may be deduced. But if we ſay, *This World had a Beginning*; the Aſſertion is indeed equally true, but ſhines not forth with the ſame Degree of Evidence. We find great Difficulty in conceiving how the World could be made out of nothing; and are not brought to a free and full Conſent, until by Reaſoning we arrive at a clear View of the Abſurdity involved in the contrary Suppoſition. Hence this Propoſition is of the kind we call *demonſtrable*, inaſmuch as its Truth is not immediately perceived by the Mind, but yet may be made appear by means of others more known and obvious, whence it follows as an unavoidable Conſequence.

Why Reaſoning is employed about demonſtrable Propoſitions.

III. FROM what has been ſaid it appears, that Reaſoning is employed only about demonſtrable Propoſitions, and that our intuitive and ſelf-evident Perceptions

Perceptions, are the ultimate Foundation on which it reſts. And now we ſee clearly the Reaſon, why in the Diſtinction of the Powers of the Underſtanding, as explained in the Introduction to this Treatiſe, the ſecond Operation of the Mind was confined wholly to *intuitive* Acts. Our firſt Step to the Way of Knowledge is, to furniſh ourſelves with Ideas. When theſe are obtained, we next ſet ourſelves to compare them together, in order to judge of their Agreement or Diſagreement. If the Relations we are in queſt of, lie immediately open to a View of the Mind, the Judgments expreſſing them are ſelf-evident; and the Act of the Mind forming theſe Judgments, is what we call *Intuition*. But if upon comparing our Ideas together, we cannot readily and at once trace their Relation, it then becomes neceſſary to employ Search and Examination, and call in the Aſſiſtance of ſelf-evident Truths, which is what we properly term *Reaſoning*. Every Judgment therefore that is not intuitive, being gained by an Exerciſe of the Reaſoning Faculty, neceſſarily belongs to the third Operation of the Mind, and ought to be referred to it in a juſt Diviſion of the Powers of the Underſtanding. And indeed it is with this View chiefly, that we have diſtinguiſhed Propoſitions into ſelf-evident and demonſtrable. Under the firſt Head are comprehended all our intuitive Judgments, that is, all belonging to the ſecond Operation of the Mind. Demonſtrable Propoſitions are the proper Province of the Reaſoning Faculty, and conſtitute by far the moſt conſiderable Part of human Knowledge. Indeed *Reaſon* extends alſo to Matters of Experience and Teſtimony, where the Proofs adduced, are not of the Kind called Demonſtration. But I am here only conſidering the Powers of the Mind, as employed in tracing the Relations between its own Ideas, in which View of Things, every true Propoſition is demonſtrable; though very often we find ourſelves incapable, of diſcovering and applying thoſe intermediate Ideas, upon which the Demonſtration depends.

confined wholly to Intuition.

IV. DEMONSTRABLE Propoſitions therefore, belonging properly to the third Operation of the Mind, I ſhall for the preſent diſmiſs them, and return to the Conſideration of ſelf-evident Truths. Theſe, as I have already obſerved, furniſh the firſt Principles of Reaſoning; and it is certain, that if in our Reſearches, we employ only ſuch Principles as have this Character of Self-evidence, and apply them according to the Rules to be afterwards explained, we ſhall be in no Danger of Error, in advancing from one Diſcovery to another. For this I may

Self-evident Truths the firſt Principles of Reaſoning.

appeal to the Writings of the Mathematicians, which being conducted by the expreſs Model here mentioned, are an inconteſtible Proof, of the Firmneſs and Stability of human Knowledge, when built upon ſo ſure a Foundation. For not only have the Propoſitions of this Science ſtood the Teſt of Ages; but are found attended with that invincible Evidence, as forces the Aſſent of all, who duly conſider the Proofs upon which they are eſtabliſhed. Since then Mathematicians are univerſally allowed, to have hit upon the right Method of arriving at Truths; ſince they have been the happieſt in the Choice, as well as Application of their Principles; it may not be amiſs to explain here, the Diviſion they have given of ſelf-evident Propoſitions; that by treading in their Steps, we may learn ſomething of that Juſtneſs and Solidity of Reaſoning, for which they are ſo deſervedly eſteemed.

Definitions a great Help to Clearneſs and Evidence in Knowledge.

V. FIRST then it is to be obſerved, that they have been very careful in aſcertaining their Ideas, and fixing the Signification of their Terms. For this Purpoſe they begin with *Definitions*, in which the Meaning of their Words is ſo diſtinctly explained, that they cannot fail to excite in the Mind of an attentive Reader, the very ſame Ideas as are annexed to them by the Writer. And indeed I am apt to think, that the Clearneſs and irreſiſtible Evidence of Mathematical Knowledge, is owing to nothing ſo much, as this Care in laying the Foundation. Where the Relation between any two Ideas are accurately and juſtly traced; it will not be difficult for another to comprehend that Relation, if in ſetting himſelf to diſcover it, he brings the very ſame Ideas into Compariſon. But if, on the contrary, he affixes to his Words, Ideas different from thoſe that were in the Mind of him who firſt advanced the Demonſtration; it is evident, that as the ſame Ideas are not compared, the ſame Relation cannot ſubſiſt, inſomuch that a Propoſition will be rejected as falſe, which, had the Terms been rightly underſtood, muſt have appeared unexceptionably true. A Square for Inſtance is a Figure, bounded by four equal right Lines, joined together at right Angles. Here the Nature of the Angles makes no leſs a Part of the Idea, than the Equality of the Sides; and many Properties demonſtrated of the Square, flow entirely from its being a rectangular Figure. If therefore we ſuppoſe a Man, who has formed a partial Notion of a Square, comprehending only the Equality of its Sides, without Regard to the Angles, reading ſome Demonſtration that implies alſo this latter Conſideration; it is plain he would reject it as not univerſally true, inaſmuch

ı as it could not be applied, where the Sides were joined r at unequal Angles. For this laſt Figure, anſwering ı his Idea of a Square, would be yet found without ›perty aſſigned to it in the Propoſition. But if he comes ırds to correct his Notion, and render his Idea compleat, l then readily own the Truth and Juſtneſs of the De- ation.

Mathematicians by beginning with them, procure a ready Reception to the Truths they advance.

WE ſee therefore, that nothing contri- › much to the Improvement and Certainty ıan Knowledge, as the having determinate and keeping them ſteady and invariable in r Diſcourſes and Reaſonings about them. n this Account it is, that Mathematicians, before obſerved, always begin by defining 'erms, and diſtinctly unfolding the Notions re intended to expreſs. Hence ſuch as apply themſelves ſe Studies, have exactly the ſame Views of Things, ringing always the very ſame Ideas into Compariſon, diſcern the Relations between them, when clearly and tly repreſented. Nor is there any more natural and s Reaſon, for the univerſal Reception given to Ma- ical Truths, and for that Harmony and Correſpondence timents, which makes the diſtinguiſhing Character of 'erati of this Claſs.

The Eſtabliſhing of Principles, the ſecond Step in Mathematical Knowledge.

. WHEN they have taken this firſt Step, ade known the Ideas, whoſe Relations they to inveſtigate; their next Care is, to lay ſome ſelf-evident Truths, which may ſerve ›undation for their future Reaſonings. And ıdeed they proceed with remarkable Circum- n, admitting no Principles, but what flow immedi- from their Definitions, and neceſſarily force themſelves a Mind, in any Degree attentive to its Perceptions. a *Circle* is a Figure formed by a right Line, moving ſome fixed Point in the ſame Plane. The fixed Point which the Line is ſuppoſed to move, and where one Extremities terminate, is called the *Center* of the Circle. ›ther Extremity, which is conceived to be carried round, it returns to the Point whence it firſt ſet out, deſcribes ve running into itſelf, and termed the *Circumference*. ght Lines drawn from the Center to the Circumference, lled *Radii*. From theſe Definitions compared, Geome- s derive this ſelf-evident Truth; *that the Radii of the Circle are all equal to one another.* I call it ſelf-evident, e nothing more is required, to lay it open to the im-

mediate Perception of the Mind, than an Attention to the Ideas compared. For from the very Geneſis of a Circle it is plain, that the Circumference is every where diſtant from the Center, by the exact Length of the deſcribing Line; and that the ſeveral Radii are in Truth nothing more, than one and the ſame Line variouſly poſited within the Figure. This ſhort Deſcription will I hope ſerve, to give ſome little Inſight into the Manner of deducing Mathematical Principles, as well as into the Nature of that Evidence which accompanies them.

Propoſitions divided into ſpeculative and practical.

VIII. AND now I proceed to obſerve, that in all Propoſitions, we either affirm or deny ſome Property of the Idea that conſtitutes the Subject of our Judgment, or we maintain that ſomething may be done or effected. The firſt Sort are called *ſpeculative* Propoſitions, as in the Example mentioned above, *the Radii of the ſame Circle are all equal one to another.* The others are called *practical*, for a Reaſon too obvious to be mentioned; thus, *that a right Line may be drawn from one Point to another*, is a practical Propoſition; inaſmuch as it expreſſes that ſomething may be done.

Hence Mathematical Principles diſtinguiſhed into Axioms and Poſtulates.

IX. FROM this twofold Conſideration of Propoſitions, ariſes the twofold Diviſion of Mathematical Principles, into *Axioms* and *Poſtulates*. By an *Axiom* they underſtand any ſelf-evident *ſpeculative* Truth; as *that the whole is greater than its Parts: That Things equal to one and the ſame Thing, are equal to one another.* But a ſelf-evident *practical* Propoſition is what they call a *Poſtulate.* Such are thoſe of *Euclid*; *that a finite Right-Line may be continued directly forwards: That a Circle may be deſcribed about any Center with any Diſtance.* And here we are to obſerve, that as in an *Axiom*, the Agreement or Diſagreement between the Subject and Predicate, muſt come under the immediate Inſpection of the Mind; ſo in a *Poſtulate*, not only the Poſſibility of the Thing aſſerted, muſt be evident at firſt View, but alſo the Manner in which it may be effected. For where this Manner is not of itſelf apparent, the Propoſition comes under the Notion of the demonſtrable kind, and is treated as ſuch by Geometrical Writers. Thus, *to draw a Right-Line from one Point to another*; is aſſumed by *Euclid* as a *Poſtulate*, becauſe the Manner of doing it is ſo obvious, as to require no previous Teaching. But then it is not equally evident, *how we are to conſtruct an equilateral Triangle.* For this Reaſon he advances it as a demonſtrable Propoſition, lays down Rules for the exact Performance,

and at the ſame time proves, that if theſe Rules are
l, the Figure will be juſtly deſcribed.

And demonſtrable Propoſitions into Theorems and Problems.

his naturally leads me to take notice, *ſelf-evident Truths* are diſtinguiſhed into : Kinds, according as they are ſpeculative ical; ſo is it alſo with *demonſtrable* Propo-

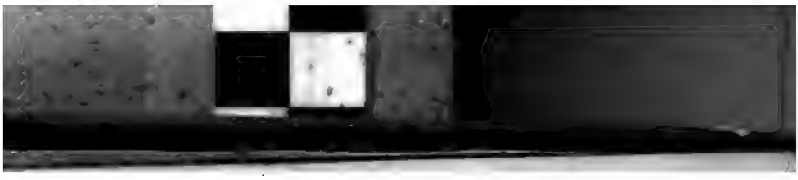
A demonſtrable ſpeculative Propoſition, athematicians called a *Theorem*. Such is the 47th Propoſition of the firſt Book of the *Elements*, known ame of the *Pythagoric* Theorem, from its ſuppoſed Pythagoras, *viz. That in every right-angled Triangle, re deſcribed upon the Side ſubtending the Right-Angle, to both the Squares deſcribed upon the Sides containing t-Angle.* On the other hand, a demonſtrable practical ion, is called a *Problem*; as where *Euclid* teaches us, *e a Square upon a given Right-Line*

Corollaries are obvious Deductions from Theorems or Problems.

SINCE I am upon this Subject, it may not to add, that beſides the four Kinds of Pro- already mentioned, Mathematicians have ifth, known by the Name of *Corollaries.* are uſually ſubjoined to *Theorems*, or *Pro-* nd differ from them only in this; that they flow from there demonſtrated in ſo obvious a Manner, as to diſ- eir Dependence upon the Propoſition whence they ced, almoſt as ſoon as propoſed. Thus *Euclid* having trated, *that in every right-lined Triangle, all the three aken together are equal to two Right-Angles*; adds by Corollary, *that all the three Angles of any one Triangle gether, are equal to all the three Angles of any other taken together:* which is evident at firſt Sight; be- all Caſes they are equal to two right ones, and Things one and the ſame thing, are equal to one another.

Scholia ſerve the Purpoſes of Annotations or a Comment.

THE laſt Thing I ſhall take notice of in ctice of the Mathematicians, is what they ir *Scholia*. They are indifferently annexed nitions, Propoſitions, or Corollaries; and the ſame Purpoſes as Annotations upon a Author. For in them Occaſion is taken, in whatever may appear intricate and obſcure in a Train oning; to anſwer Objections; to teach the Applica- and Uſes of Propoſitions; to lay open the Original and of the ſeveral Diſcoveries made in the Science; and rd, to acquaint us with all ſuch Particulars as deſerve known, whether conſidered as Points of Curioſity or



This Method of the Mathematicians universal, and a ſure Guide to Certainty.

XIII. THUS we have taken a ſhort View of the ſo much celebrated Method of the Mathematicians; which to any one who conſiders it with a proper Attention, muſt needs appear univerſal, and equally applicable in other Sciences. They begin with Definitions. From theſe they deduce their Axioms and Poſtulates, which ſerve as Principles of Reaſoning; and having thus laid a firm Foundation, advance to Theorems and Problems, eſtabliſhing all by the ſtricteſt Rules of Demonſtration. The Corollaries flow naturally and of themſelves. And if any Particulars are ſtill wanting, to illuſtrate a Subject, or compleat the Reader's Information; theſe, that the Series of Reaſoning may not be interrupted or broken, are generally thrown into Scholia. In a Syſtem of Knowledge ſo uniform and well connected, no wonder if we meet with Certainty; and if thoſe Clouds and Darkneſſes, that deface other Parts of human Science, and bring Diſcredit even upon Reaſon itſelf, are here ſcattered and diſappear.

Self-evident Truths known by the apparent unavoidable Connection, between the Subject and Predicate.

XIV. BUT I ſhall for the preſent wave theſe Reflections, which every Reader of Underſtanding is able to make of himſelf, and return to the Conſideration of ſelf-evident Propoſitions. It will doubtleſs be expected, after what has been here ſaid of them, that I ſhould eſtabliſh ſome *Criteria* or Marks, by which they may be diſtinguiſhed. But I frankly own my Inability in this reſpect, as not being able to conceive any thing in them, more obvious and ſtriking, than that Self-evidence which conſtitutes their very Nature. All I have therefore to obſerve on this Head is, that we ought to make it our firſt Care, to obtain clear and determinate Ideas. When afterwards we come to compare theſe together, if we perceive between any of them a neceſſary and unavoidable Connection, inſomuch that it is impoſſible to conceive them exiſting aſunder, without deſtroying the very Ideas compared; we may then conclude, that the Propoſition expreſſing this Relation, is a Principle, and of the kind we call ſelf-evident. In the Example mentioned above, *The Radii of the ſame Circle are all equal between themſelves*, this intuitive Evidence ſhines forth in the cleareſt manner; it being impoſſible for any one who attends to his own Ideas, not to perceive the Equality here aſſerted. For as the Circumference is every where diſtant from the Center, by the exact Length of the deſcribing Line; the Radii drawn from the Center into the Circumference, being ſeverally equal to this one Line, muſt needs alſo be equal among themſelves. If we ſuppoſe the

the Radii unequal, we at the ſame time ſuppoſe the Circumference more diſtant from the Center in ſome Places than in others; which Suppoſition, as it would exhibit a Figure quite different from a Circle, we ſee there is no ſeparating the Predicate from the Subject in this Propoſition, without deſtroying the Idea, in relation to which the Compariſon was made. The ſame thing will be found to hold, in all our other intuitive Perceptions, inſomuch that we may eſtabliſh this as an univerſal *Criterion*, whereby to judge of and diſtinguiſh them. I would not however be underſtood to mean, as if this ready View of the unavoidable Connection between ſome Ideas, was any thing really different from Self-evidence. It is indeed nothing more than the Notion of Self-evidence a little unfolded, and as it were laid open to the Inſpection of the Mind. Intuitive Judgments need no other diſtinguiſhing Marks, than that Brightneſs which ſurrounds them; in like manner as Light diſcovers itſelf by its own Preſence, and the Splendor it univerſally diffuſes. But I have ſaid enough of ſelf-evident Propoſitions, and ſhall therefore now proceed to thoſe of the demonſtrable kind; which being gained in Conſequence of Reaſoning, naturally leads us to the third Part of Logick, where this Operation of the Underſtanding is explained.

THE ELEMENTS OF LOGICK.

BOOK III.

Of REASONING.

CHAP. I.

Of Reaſoning in general, and the Parts of which it conſiſts.

Remote Relations diſcovered by means of intermediate Ideas.

I. WE have ſeen how the Mind proceeds in furniſhing itſelf with Ideas, and framing intuitive Perceptions. Let us next enquire into the Manner of diſcovering thoſe more remote Relations, which lying at a Diſtance from the Underſtanding, are not to be traced, but by means of a higher Exerciſe of its Powers. It often happens in comparing Ideas together, that their Agreement or Diſagreement cannot be diſcerned at firſt View, eſpecially if they are of ſuch a Nature, as not to admit of an exact Application one to another. When for inſtance we compare two Figures of a different Make, in order to judge of their Equality or Inequality, it is plain, that by barely conſidering the Figures themſelves, we cannot arrive at an exact Determination; becauſe by reaſon of their diſagreeing Forms, it is impoſſible ſo to put them together, as that their ſeveral Parts ſhall mutually coincide. Here then it becomes

becomes neceſſary to look out for ſome third Idea, that will admit of ſuch an Application as the preſent Caſe requires; wherein if we ſucceed, all Difficulties vaniſh, and the Relation we are in queſt of may be traced with Eaſe. Thus right-lined Figures are all reduced to Squares, by means of which we can meaſure their Areas, and determine exactly their Agreement or Diſagreement in point of Magnitude.

This manner of arriving at Truth termed Reaſoning.

II. If now it be aſked, how any third Idea can ſerve to diſcover a Relation between two others: I anſwer, by being compared ſeverally with theſe others; for ſuch a Compariſon enables us to ſee how far the Ideas with which this third is compared, are connected or disjoined between themſelves. In the Example mentioned above of two right-lined Figures, if we compare each of them with ſome Square whoſe Area is known, and find the one exactly equal to it, and the other leſs by a Square-Inch, we immediately conclude, that the Area of the firſt Figure is a Square-Inch greater than that of the ſecond. This Manner of determining the Relation between any two Ideas, by the Intervention of ſome third with which they may be compared, is that which we call *Reaſoning*, and is indeed the chief Inſtrument, by which we puſh on our Diſcoveries, and enlarge our Knowledge. The great Art lies, in finding out ſuch intermediate Ideas, as when compared with the others in the Queſtion, will furniſh evident and known Truths, becauſe as will afterwards appear, it is only by means of them, that we arrive at the Knowledge of what is hidden and remote.

The Parts that conſtitute an Act of Reaſoning and a Syllogiſm.

III. FROM what has been ſaid it appears, that every Act of Reaſoning, neceſſarily includes three diſtinct Judgments; two wherein the Ideas whoſe relation we want to diſcover, are ſeverally compared with the middle Idea, and a third wherein they are themſelves connected or disjoined, according to the Reſult of that Compariſon. Now as in the ſecond Part of Logick, our Judgments when put into Words were called Propoſitions, ſo here in the third Part, the Expreſſions of our Reaſonings are termed *Syllogiſms*. And hence it follows, that as every Act of Reaſoning implies three ſeveral Judgments, ſo every Syllogiſm muſt include three diſtinct Propoſitions. When a Reaſoning is thus put into Words, and appears in Form of a Syllogiſm, the intermediate Idea made uſe of to diſcover the Agreement or Diſagreement we ſearch for, is called the *middle Term*; and the two Ideas themſelves, with which this third is compared, go by the Name of the *Extremes*.

IV. BUT

Inſtance, Man and Accountableneſs.

IV. BUT as theſe things are beſt illuſtrated by Examples; let us for inſtance ſet ourſelves to enquire, *Whether Men are accountable for their Actions.* As the Relation between the Ideas of *Man* and *Accountableneſs* comes not within the immediate View of the Mind, our firſt Care muſt be, to find out ſome third Idea, that will enable us the more eaſily to diſcover and trace it. A very ſmall Meaſure of Reflection is ſufficient to inform us, that no Creature can be accountable for his Actions, unleſs we ſuppoſe him capable of diſtinguiſhing the good from the bad; that is, unleſs we ſuppoſe him poſſeſſed of Reaſon. Nor is this alone ſufficient. For what would it avail him to know good from bad Actions, if he had no Freedom of Choice, nor could avoid the one, and purſue the other? Hence it becomes neceſſary to take in both Conſiderations in the preſent Caſe. It is at the ſame time equally apparent, that where-ever there is this Ability of diſtinguiſhing good from bad Actions, and of purſuing the one and avoiding the other, there alſo a Creature is accountable. We have then got a third Idea, with which *Accountableneſs* is inſeparably connected, *viz. Reaſon and Liberty*; which are here to be conſidered as making up one complex Conception. Let us now take this middle Idea, and compare it with the other Term in the Queſtion, *viz. Man*, and we all know by Experience, that it may be affirmed of him. Having thus by means of the intermediate Idea formed two ſeveral Judgments, *viz. that Man is poſſeſſed of Reaſon and Liberty*; and *that Reaſon and Liberty imply Accountableneſs*; a third obviouſly and neceſſarily follows, *viz. that Man is accountable for his Actions.* Here then we have a compleat Act of Reaſoning, in which, according to what has been already obſerved, there are three diſtinct Judgments; two that may be ſtiled previous, inaſmuch as they lead to the other, and ariſe from comparing the middle Idea, with the two Ideas in the Queſtion: the third is a Conſequence of theſe previous Acts, and flows from combining the extreme Ideas between themſelves. If now we put this Reaſoning into Words, it exhibits what Logicians term a Syllogiſm, and when propoſed in due Form, runs thus:

Every Creature poſſeſſed of Reaſon and Liberty is accountable for his Actions.

Man is a Creature poſſeſſed of Reaſon and Liberty.

Therefore Man is accountable for his Actions.

Premiſſes, Concluſion, Extremes, middle Term.

IV. IN this Syllogiſm we may obſerve, that there are three ſeveral Propoſitions, expreſſing the three Judgments implied in the Act of Reaſoning,

ing, and ſo diſpoſed, as to repreſent diſtinctly what paſſes within the Mind, in tracing the more diſtant Relations of its Ideas. The two firſt Propoſitions anſwer the two previous Judgments in Reaſoning, and are called the *Premiſſes*, becauſe they are placed before the other. The third is termed the *Concluſion*, as being gained in conſequence of what was aſſerted in the Premiſſes. We are alſo to remember, that the Terms expreſſing the two Ideas whoſe Relation we enquire after, as here *Man* and *Accountableneſs*, are in general called the *Extremes*; and that the intermediate Idea, by means of which the Relation is traced, viz. *A Creature poſſeſſed of Reaſon and Liberty*, takes the Name of the *middle Term*. Hence it follows, that by the *Premiſſes* of a Syllogiſm, we are always to underſtand the two Propoſitions, where the middle Term is ſeverally compared with the *Extremes*; for theſe conſtitute the previous Judgments, whence the Truth we are in queſt of is by Reaſoning deduced. The *Concluſion* is that other Propoſition, in which the *Extremes* themſelves are joined or ſeparated, agreeably to what appears upon the above Compariſon. All this is evidently ſeen in the foregoing Syllogiſm, where the two firſt Propoſitions which repreſent the Premiſſes, and the third that makes the Concluſion, are exactly agreeable to the Definitions here given.

Major and Minor Term, Major and Minor Propoſition.

VI. BEFORE we take leave of this Article, it will be farther neceſſary to obſerve, that as the Concluſion is made up of the extreme Terms of the Syllogiſm, ſo that Extreme, which ſerves as the Predicate of the Concluſion, goes by the Name of the *Major Term*: the other Extreme, which makes the Subject in the ſame Propoſition, is called the *Minor Term*. From this Diſtinction of the Extremes, ariſes alſo a Diſtinction between the Premiſſes, where theſe Extremes are ſeverally compared with the middle Term. That Propoſition which compares the greater Extreme, or the Predicate of the Concluſion with the middle Term; is called the *Major Propoſition*: the other, wherein the ſame middle Term is compared with the Subject of the Concluſion, or leſſer Extreme; is called the *Minor Propoſition*. All this is obvious from the Syllogiſm already given, where the Concluſion is, *Man is accountable for his Actions*. For here the Predicate *Accountable for his Actions*, being connected with the middle Term in the firſt of the two Premiſſes; *Every Creature poſſeſſed of Reaſon and Liberty is accountable for his Actions*, gives what we call the *Major Propoſition*. In the ſecond of the Premiſſes; *Man is a Creature poſſeſſed of Reaſon and Liberty*, we find the leſſer Extreme,

treme, or Subject of the Concluſion, *viz. Man*, connected with the ſame middle Term, whence it is known to be the *Minor Propoſition*. I ſhall only add, that when a Syllogiſm is propoſed in due Form, the Major Propoſition is always placed firſt, the Minor next, and the Concluſion laſt, according as we have done in that offered above.

Judgment and Propoſition, Reaſoning and Syllogiſm, diſtinguiſhed.

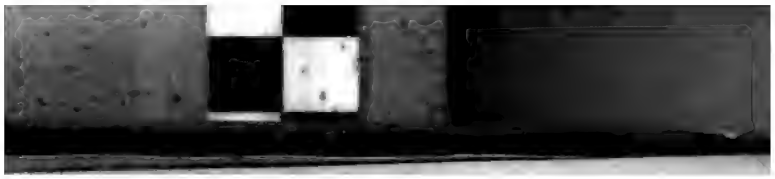
VII. HAVING thus cleared the Way, by explaining ſuch Terms, as we are likely to have occaſion for in the Progreſs of this Treatiſe; it may not be amiſs to obſerve, that though we have carefully diſtinguiſhed between the *Act of Reaſoning*, and a *Syllogiſm*, which is no more than the Expreſſion of it, yet common Language is not ſo critical on this Head; the Term *Reaſoning* being promiſcuouſly uſed to ſignify, either the Judgments of the Mind as they follow one another in Train, or the Propoſitions expreſſing theſe Judgments. Nor need we wonder that it is ſo, inaſmuch as our Ideas and the Terms appropriated to them, are ſo connected by Habit and Uſe, that our Thoughts fall as it were ſpontaneouſly into Language, as faſt as they ariſe in the Mind; ſo that even in our Reaſonings within ourſelves, we are not able wholly to lay aſide Words. But notwithſtanding this ſtrict Connection between *mental* and *verbal* Reaſoning, if I may be allowed that Expreſſion, I thought it needful here to diſtinguiſh them, in order to give a juſt Idea of the Manner of deducing one Truth from another. While the Mind keeps the Ideas of Things in View, and combines its Judgments according to the real Evidence attending them, there is no great Danger of Miſtake in our Reaſonings, becauſe we carry our Concluſions no farther than the Clearneſs of our Perceptions warrant us. But where we make uſe of Words the Caſe is often otherwiſe; nothing being more common than to let them paſs, without attending to the Ideas they repreſent; inſomuch that we frequently combine Expreſſions, which upon Examination appear to have no determinate Meaning. Hence it greatly imports us to diſtinguiſh between Reaſoning and Syllogiſm; and to take care that the one be in all Caſes the true and juſt Repreſentation of the other. However, as I am unwilling to recede too far from the common Forms of Speech, or to multiply Diſtinctions without Neceſſity, I ſhall henceforward conſider Propoſitions as repreſenting the real Judgments of the Mind, and Syllogiſms as the true Copies of our Reaſonings; which indeed they ought always to be, and undoubtedly always will be, to Men who think juſtly, and are deſirous of arriving at Truth. Upon this Suppoſition there will be no Danger in

uſing the Words Judgment and Propoſition promiſcuouſly; or in conſidering Reaſoning as either a Combination of various Judgments, or of the Propoſitions expreſſing them; becauſe being the exact Copies one of another, the Reſult will be in all Caſes the ſame. Nor is it a ſmall Advantage that we can thus conform to common Speech, without confounding our Ideas, or running into Ambiguity. By this means we bring ourſelves upon a Level with other Men, readily apprehend the Meaning of their Expreſſions, and can with Eaſe convey our own Notions and Sentiments in their Minds.

In a ſingle Act of Reaſoning, the Premiſſes muſt be intuitive Truths.

VIII. THESE Things premiſed, we may in the general define Reaſoning, *to be an Act or Operation of the Mind, deducing ſome unknown Propoſition, from other previous ones that are evident and known.* Theſe previous Propoſitions, in a ſimple Act of Reaſoning, are only two in Number; and it is always required that they be of themſelves apparent to the Underſtanding, inſomuch that we aſſent to and perceive the Truth of them as ſoon as propoſed. In the Syllogiſm given above, the Premiſſes are ſuppoſed to be ſelf-evident Truths, otherwiſe the Concluſion could not be inferred by a ſingle Act of Reaſoning. If for inſtance in the Major, *Every Creature poſſeſſed of Reaſon and Liberty is accountable for his Actions*, the Connection between the Subject and Predicate could not be perceived by a bare Attention to the Ideas themſelves; it is evident, that this Propoſition would no leſs require a Proof, than the Concluſion deduced from it. In this Caſe a new middle Term muſt be ſought for, to trace the Connection here ſuppoſed; and this of courſe furniſhes another Syllogiſm, by which having eſtabliſhed the Propoſition in queſtion, we are then and not before at liberty to uſe it in any ſucceeding Train of Reaſoning. And ſhould it ſo happen that in this ſecond Eſſay, there was ſtill ſome previous Propoſition whoſe Truth did not appear at firſt Sight; we muſt then have recourſe to a third Syllogiſm, in order to lay open that Truth to the Mind; becauſe ſo long as the Premiſſes remain uncertain, the Concluſion built upon them muſt be ſo too. When by conducting our Thoughts in this manner, we at laſt arrive at ſome Syllogiſm, where the previous Propoſitions are intuitive Truths; the Mind then reſts in full Security, as perceiving that the ſeveral Concluſions it has paſſed through, ſtand upon the immoveable Foundation of Self-evidence, and when traced to their Source terminate in it.

IX. WE



Reaſoning in the higheſt Exerciſe of it only a Concatenation of Syllogiſms.

IX. WE ſee therefore, that in order to infer a Concluſion by a ſingle Act of Reaſoning, the Premiſſes muſt be intuitive Propoſitions. Where they are not, previous Syllogiſms are required, in which Caſe Reaſoning becomes a complicated Act, taking in a Variety of ſucceſſive Steps. This frequently happens in tracing the more remote Relation of our Ideas, where many middle Terms being called in, the Concluſion cannot be made out, but in conſequence of a Series of Syllogiſms following one another in Train. But although in this Concatenation of Propoſitions, thoſe that form the Premiſſes of the laſt Syllogiſm, are often conſiderably removed from Self-evidence; yet if we trace the Reaſoning backwards, we ſhall find them the Concluſions of previous Syllogiſms, whoſe Premiſſes approach nearer and nearer to Intuition, in proportion as we advance, and are found at laſt to terminate in it. And if, after having thus unravelled a Demonſtration, we take it the contrary Way; and obſerve how the Mind ſetting out with intuitive Perceptions, couples them together to form a Concluſion, how by introducing this Concluſion into another Syllogiſm, it ſtill advances one Step farther; and ſo proceeds, making every new Diſcovery ſubſervient to its future Progreſs; we ſhall then perceive clearly, that Reaſoning in the higheſt Exerciſe of that Faculty is no more than an orderly Combination of thoſe ſimple Acts, which we have already ſo fully explained. The great Art lies, in ſo adjuſting our Syllogiſms one to another, that the Propoſitions ſeverally made uſe of as Premiſſes, may be manifeſt Conſequences of what goes before. For as by this Means, every Concluſion is deduced from known and eſtabliſhed Truths, the very laſt in the Series, how far ſoever we carry it, will have no leſs Certainty attending it, than the original intuitive Perceptions themſelves, in which the whole Chain of Syllogiſms takes its Riſe.

Requires intuitive Certainty in every Step of the Progreſſion.

X. THUS we ſee, that Reaſoning beginning with firſt Principles, riſes gradually from one Judgment to another, and connects them in ſuch manner, that every Stage of the Progreſſion brings intuitive Certainty along with it. And now at length we may clearly underſtand the Definition given above of this diſtinguiſhing Faculty of the human Mind. Reaſon we have ſaid is the Ability of deducing unknown Truths, from Principles or Propoſitions that are already known. This evidently appears by the foregoing Account, where we ſee, that no Propoſition is admitted into a Syllogiſm, to have as one of the previous Judgments on which the Concluſion reſts,

unless it is itself a known and established Truth, or Connection with self-evident Principles has been traced.

Self-evident Truths, the ultimate Foundation of all Science and Certainty.

There is yet another Observation which naturally offers itself, in consequence of the above Hints, viz. that all the Knowledge acquired by Reasoning, how far soever we carry our Discoveries, is still built upon our intuitive Perceptions. Towards the End of the last Part we divided Propositions into self-evident and demonstrable, and represented those of the self-evident kind, as the Foundation on which the whole Superstructure of human Science rested. This Doctrine is now abundantly confirmed by what has been delivered in the present Chapter. We have found that every Discovery of human Reason is the Consequence of a Train of Syllogisms, which when traced to their Source, always terminate in self-evident Perceptions. When the Mind arrives at these primitive Truths, it pursues not its Enquiries farther, as well knowing that no Evidence can exceed that which flows from an immediate View of the Agreement or Disagreement between the Ideas. And hence it is, that in unravelling any Part of Knowledge, in order to come at the Foundation on which it rests, intuitive Truths are always the last Resort of the Understanding, beyond which it aims not to advance, but possesses its Notions in perfect Security, as having now reached the Spring and Fountain of all Science and Certainty.

CHAP. II.

The several Kinds of Reasoning, and first of that by which we determine the Genera and Species of Things.

Reasoning twofold.

WE have endeavoured in the foregoing Chapter to give as distinct a Notion as possible of Reasoning, and of the Manner in which it is conducted. Let us now enquire a little into the Discoveries made by this Faculty, and what those Ends are, which have principally in view in the Exercise of it. All the Labours of human Reason may in the general be reduced to these two: 1. To rank Things under those universal Ideas to which they truly belong; and, 2. To ascribe to them several Attributes and Properties in consequence of that Distribution.

II. First

The first Kind regards the Genera and Species of Things.

II. FIRST then I ſay, that one great Aim of human Reaſon is, to determine the Genera and Species of Things. We have ſeen in the firſt Part of this Treatiſe, how the Mind proceeds in framing general Ideas. We have alſo ſeen in the ſecond Part, how by means of theſe general Ideas, we come by univerſal Propoſitions. Now as in theſe univerſal Propoſitions, we affirm ſome Property of a Genus or Species, it is plain that we cannot apply this Property to particular Objects, till we have firſt determined, whether they are comprehended under that general Idea, of which the Property is affirmed. Thus there are certain Properties belonging to all *even* Numbers, which nevertheleſs cannot be applied to any particular Number, until we have firſt diſcovered it to be of the Species expreſſed by that natural Name. Hence Reaſoning begins with referring Things to their ſeveral Diviſions and Claſſes in the Scale of our Ideas; and as theſe Diviſions are all diſtinguiſhed by particular Names, we hereby learn to apply the Terms expreſſing general Conceptions, to ſuch particular Objects, as come under our immediate Conſideration.

The Steps by which we arrive at Concluſions of this Sort.

III. Now in order to arrive at theſe Concluſions, by which the ſeveral Objects of Perception are brought under general Names, two Things are manifeſtly neceſſary. Firſt, that we take a View of the Idea itſelf denoted by that general Name, and carefully attend to the diſtinguiſhing Marks which ſerve to characterize it. Secondly, that we compare this Idea with the Object under Conſideration, obſerving diligently wherein they agree or differ. If the Idea is found to correſpond with the particular Object, we then without Heſitation apply the general Name; but if no ſuch Correſpondence intervenes, the Concluſion muſt neceſſarily take a contrary Turn. Let us for inſtance take the Number *Eight*, and conſider by what Steps we are led to pronounce it an *even* Number. Firſt then we call to mind the Idea ſignified by the Expreſſion *an even Number*, viz. that it is *a Number diviſible into equal Parts*. We then compare this Idea with the Number *Eight*, and finding them manifeſtly to agree, ſee at once the Neceſſity of admitting the Concluſion. Theſe ſeveral Judgments therefore, tranſferred into Language, and reduced to the Form of a Syllogiſm, appear thus:

Every Number that may be divided into two equal Parts is an EVEN *Number.*

The Number EIGHT *may be divided into two equal Parts.*

Therefore the Number EIGHT *is an* EVEN *Number.*

IV.

IV. I HAVE made choice of this Example, not ſo much for the Sake of the Concluſion, which is obvious enough, and might have been obtained without all that Parade of Words; but chiefly becauſe it is of eaſy Comprehenſion, and ſerves at the ſame time diſtinctly to exhibit the Form of Reaſoning, by which the Underſtanding conducts itſelf in all Inſtances of this kind. And here it may be obſerved, that where the general Idea, to which particular Objects are referred, is very familiar to the Mind, and frequently in view; this Reference, and the Application of the general Name, ſeem to be made without any Apparatus of Reaſoning. When we ſee a Horſe in the Fields, or a Dog in the Street, we readily apply the Name of the Species; Habit, and a familiar Acquaintance with the general Idea, ſuggeſting it inſtantaneouſly to the Mind. We are not however to imagine on this Account, that the Underſtanding departs from the uſual Rules of juſt Thinking. A frequent Repetition of Acts begets a Habit; and Habits are attended with a certain Promptneſs of Execution, that prevents our obſerving the ſeveral Steps and Gradations, by which any Courſe of Action is accompliſhed. But in other Inſtances, where we judge not by pre-contracted Habits, as when the general Idea is very complex, or leſs familiar to the Mind; we always proceed according to the Form of Reaſoning eſtabliſhed above. A Goldſmith for inſtance, who is in doubt as to any Piece of Metal, whether it be of the Species called *Gold*; firſt examines its Properties, and then comparing them with the general Idea ſignified by that Name, if he finds a perfect Correſpondence, no longer heſitates under what Claſs of Metals to rank it. Now what is this, but following Step by Step thoſe Rules of Reaſoning, which we have before laid down as the Standards, by which to regulate our Thoughts in all Concluſions of this kind?

Theſe Steps always followed, tho' in familiar Caſes we do not attend to them.

V. NOR let be imagined, that our Reſearches here, becauſe in Appearance bounded to the impoſing of general Names upon particular Objects, are therefore trivial and of little Conſequence. Some of the moſt conſiderable Debates among Mankind, and ſuch too as nearly regard their Lives, Intereſt, and Happineſs, turn wholly upon this Article. Is it not the chief Employment of our ſeveral Courts of Judicature, to determine in particular Inſtances, what is Law, Juſtice, and Equity? Of what Importance is it in many Caſes, to decide aright, whether an Action ſhall be termed Murder or Manſlaughter? We ſee then, that no leſs than the Lives and Fortunes of Men, depend often

The great Importance of this Branch of Reaſoning.

upon theſe Deciſions. The Reaſon is plain. Actions when once referred to a general Idea, draw after them all that may be affirmed of that Idea; inſomuch that the determining the Species of Actions, is all one with determining what Proportion of Praiſe or Diſpraiſe, Commendation or Blame, *&c* ought to follow them. For as it is allowed that Murder deſerves Death, by bringing any particular Action under the Head of Murder, we of courſe decide the Puniſhment due to it.

And the exact Obſervance of it practiſed by Mathematicians.

VI. BUT the great Importance of this Branch of Reaſoning, and the Neceſſity of Care and Circumſpection, in referring particular Objects to general Ideas, is ſtill farther evident from the Practice of the Mathematicians. Every one who has read *Euclid* knows, that he frequently requires us to draw Lines thro' certain Points, and according to ſuch and ſuch Directions. The Figures thence reſulting are often Squares, Parallelograms, or Rectangles. Yet *Euclid* never ſuppoſes this from their bare Appearance, but always demonſtrates it upon the ſtricteſt Principles of Geometry. Nor is the Method he takes in any thing different from that deſcribed above. Thus for inſtance, having defined a Square to be a Figure bounded by four equal Sides, joined together at right Angles; when ſuch a Figure ariſes in any Conſtruction previous to the Demonſtration of a Propoſition, yet he never calls it by that Name, until he has ſhewn that its Sides are equal, and all its Angles right ones. Now this is apparently the ſame Form of Reaſoning we have before exhibited, in proving *Eight* to be an even Number; as will be evident to any one who reduces it into a regular Syllogiſm. I ſhall only add, that when *Euclid* has thus determined the Species of any Figure, he is then and not before at liberty to aſcribe to it all the Properties already demonſtrated of that Figure, and thereby render it ſubſervient to the future Courſe of his Reaſoning.

Fixed and invariable Ideas with a ſteady Application of Names, renders this Part of Knowledge both eaſy and certain.

VII. HAVING thus ſufficiently explained the Rules, by which we are to conduct ourſelves, in ranking particular Objects under general Ideas, and ſhewn their Conformity to the Practice and Manner of the Mathematicians; it remains only to obſerve, that the true Way of rendering this Part of Knowledge both eaſy and certain, is; by habituating ourſelves to clear and determinate Ideas, and keeping them ſteadily annexed to their reſpective Names. For as all our Aim is, to apply general Words aright; if theſe Words ſtand for invariable Ideas, that are perfectly known to the Mind, and can be readily diſtinguiſhed

upon

ı Occaſion, there will be little Danger of Miſtake or r in our Reaſonings. Let us ſuppoſe that by examining Object, and carrying our Attention ſucceſſively from one to another, we have acquainted ourſelves with the ſeveral culars obſervable in it. If among theſe we find ſuch as ſtitute ſome general Idea, framed and ſettled beforehand by Underſtanding, and diſtinguiſhed by a particular Name; Reſemblance thus known and perceived, neceſſarily deter- s the Species of the Object, and thereby gives it a right to Name by which that Species is called. Thus four equal , joined together at right Angles, make up the Notion of *uare*. As this is a fixed and invariable Idea, without which eneral Name cannot be applied, we never call any parti- Figure a *Square*, until it appears to have theſe ſeveral ditions; and contrarily, wherever a Figure is found with Conditions, it neceſſarily takes the Name of a *Square*: ſame will be found to hold in all our other Reaſonings of kind; where nothing can create any Difficulty but the ıt of ſettled Ideas. If for inſtance we have not determined in ourſelves, the preciſe Notion denoted by the Word *ſlaughter*; it will be impoſſible for us to decide, whether particular Action ought to bear that Name: becauſe how- nicely we examine the Action itſelf, yet being Strangers e general Idea with which it is to be compared, we are ly unable to judge of their Agreement or Diſagreement. if we take care to remove this Obſtacle, and diſtinctly the two Ideas under Conſideration, all Difficulties vaniſh, the Reſolution becomes both eaſy and certain.

III. THUS we ſee, of what Importance it is, rds the Improvement and Certainty of human wledge, that we accuſtom ourſelves to clear leterminate Ideas, and a ſteady Application of ds. Nor is this ſo eaſy a Taſk as ſome may ps be apt to imagine; it requiring both a com- nſive Underſtanding, and great Command of ıtion, to ſettle the preciſe Bounds of our Ideas, ı they grow to be very complex, and include a Multitude rticulars. Nay and after theſe Limits are duly fixed, there certain Quickneſs of Thought and Extent of Mind re- d, towards keeping the ſeveral Parts in View, that in aring our Ideas one with another, none of them may be ooked. Yet ought not theſe Difficulties to diſcourage us; great they are not unſurmountable, and the Advantages g from Succeſs will amply recompenſe our Toil. The inty and eaſy Application of Mathematical Knowledge is

By ſuch a Conduct, Certainty and Demonſtration might be introduced into other Parts of Knowledge as well as Mathematics.

wholly owing to the exact Obſervance of this Rule. And I am apt to imagine, that if we were to employ the ſame Care about all our other Ideas, as Mathematicians have done about thoſe of Number and Magnitude, by forming them into exact Combinations, and diſtinguiſhing theſe Combinations by particular Names, in order to keep them ſteady and invariable; we ſhould ſoon have it in our Power, to introduce Certainty and Demonſtration into other Parts of human Knowledge.

CHAP. III.

Of Reaſoning as it regards the Powers and Properties of Things, and the Relations of our general Ideas.

The Diſtinction of Reaſoning as it regards the Sciences, and as it concerns common life.

I. WE come now to the ſecond great End which Men have in view in their Reaſonings, namely; the diſcovering and aſcribing to things their ſeveral Attributes and Properties. And here it will be neceſſary to diſtinguiſh between Reaſoning as it regards the Sciences, and as it concerns common Life. In the Sciences, our Reaſon is employed chiefly about univerſal Truths, it being by them alone, that the Bounds of human Knowledge are enlarged. Hence the Diviſion of things into various Claſſes, called otherwiſe Genera and Species. For theſe univerſal Ideas, being ſet up as the Repreſentatives of many particular things, whatever is affirmed of them, may be alſo affirmed of all the Individuals to which they belong. *Murder* for inſtance is a general Idea, repreſenting a certain Species of human Actions. Reaſon tells us that the Puniſhment due to it is *Death*. Hence every particular Action coming under the Notion of *Murder*, has the Puniſhment of *Death* allotted to it. Here then we apply the general Truth to ſome obvious Inſtance, and this is what properly conſtitutes the Reaſoning of common Life. For Men, in their ordinary Tranſactions and Intercourſe one with another, have for the moſt part to do only with particular Objects. Our Friends and Relations, their Characters and Behaviour, the Conſtitution of the ſeveral Bodies that ſurround us, and the Uſes to which they may be applied, are what chiefly engage our Attention. In all theſe we reaſon about particular things; and the whole Reſult of our Reaſoning is, the applying the general Truths of the Sciences, in the ordinary Tranſactions of human Life. When we ſee a Viper we avoid it. Where-

Where-ever we have Occaſion for the forcible Action of Water, to move a Body that makes conſiderable Reſiſtance, we take care to convey it in ſuch a manner, that it ſhall fall upon the Object with Impetuoſity. Now all this happens, in conſequence of our familiar and ready Application of theſe two general Truths. *The Bite of a Viper is mortal. Water falling upon a Body with Impetuoſity, acts very forcibly towards ſetting it in Motion.* In like manner, if we ſet ourſelves to conſider any particular Character, in order to determine the Share of Praiſe or Diſpraiſe that belongs to it, our great Concern is, to aſcertain exactly the Proportion of Virtue and Vice. The Reaſon is obvious. A juſt Determination in all Caſes of this kind, depends entirely upon an Application of theſe general Maxims of Morality: *Virtuous Actions deſerve Praiſe. Vicious Actions deſerve Blame.*

The Steps by which we proceed in the Reaſoning of common Life.

II. HENCE it appears, that Reaſoning as it regards common Life, is no more than the aſcribing the general Properties of things, to thoſe ſeveral Objects with which we are more immediately concerned, according as they are found to be of that particular Diviſion or Claſs, to which the Properties belong. The Steps then by which we proceed are manifeſtly theſe. Firſt, we refer the Object under Conſideration to ſome general Idea or Claſs of Things. We then recollect the ſeveral Attributes of that general Idea. And laſtly, aſcribe all thoſe Attributes to the preſent Object. Thus in conſidering the Character of *Sempronius*, if we find it to be of the kind called *Virtuous*; when we at the ſame time reflect, that a *virtuous* Character is deſerving of Eſteem, it naturally and obviouſly follows, that *Sempronius* is ſo too. Theſe Thoughts put into a *Syllogiſm*, in order to exhibit the Form of Reaſoning here required, run thus.

Every virtuous Man is worthy of Eſteem.
SEMPRONIUS *is a virtuous Man:*
Therefore SEMPRONIUS *is worthy of Eſteem.*

The Connection and Dependence of the two grand Branches of Reaſoning one upon another.

III. BY this *Syllogiſm* it appears, that before we affirm any thing of a particular Object, that Object muſt be referred to ſome general Idea. *Sempronius* is pronounced worthy of Eſteem, only in conſequence of his being a virtuous Man, or coming under that general Notion. Hence we ſee the neceſſary Connection of the various Parts of Reaſoning, and the Dependence they have one upon another. The determining the Genera and Species of Things, is as we have ſaid, one Exerciſe of human Reaſon; and here we find,

wholly owing to the exact Obſervance of this Rule. And I am apt to imagine, that if we were to employ the ſame Care about all our other Ideas, as Mathematicians have done about thoſe of Number and Magnitude, by forming them into exact Combinations, and diſtinguiſhing theſe Combinations by particular Names, in order to keep them ſteady and invariable; we ſhould ſoon have it in our Power, to introduce Certainty and Demonſtration into other Parts of human Knowledge.

CHAP. III.

Of Reaſoning as it regards the Powers and Properties of Things, and the Relations of our general Ideas.

The Diſtinction of Reaſoning as it regards the Sciences, and as it concerns common life.

I. WE come now to the ſecond great End which Men have in view in their Reaſonings, namely; the diſcovering and aſcribing to things their ſeveral Attributes and Properties. And here it will be neceſſary to diſtinguiſh between Reaſoning as it regards the Sciences, and as it concerns common Life. In the Sciences, our Reaſon is employed chiefly about univerſal Truths, it being by them alone, that the Bounds of human Knowledge are enlarged. Hence the Diviſion of things into various Claſſes, called otherwiſe Genera and Species. For theſe univerſal Ideas, being ſet up as the Repreſentatives of many particular things, whatever is affirmed of them, may be alſo affirmed of all the Individuals to which they belong. *Murder* for inſtance is a general Idea, repreſenting a certain Species of human Actions. Reaſon tells us that the Puniſhment due to it is *Death*. Hence every particular Action coming under the Notion of *Murder*, has the Puniſhment of *Death* allotted to it. Here then we apply the general Truth to ſome obvious Inſtance, and this is what properly conſtitutes the Reaſoning of common Life. For Men, in their ordinary Tranſactions and Intercourſe one with another, have for the moſt part to do only with particular Objects. Our Friends and Relations, their Characters and Behaviour, the Conſtitution of the ſeveral Bodies that ſurround us, and the Uſes to which they may be applied, are what chiefly engage our Attention. In all theſe we reaſon about particular things; and the whole Reſult of our Reaſoning is, the applying the general Truths of the Sciences, in the ordinary Tranſactions of human Life. When we ſee a Viper we avoid it. Where-

Where-ever we have Occaſion for the forcible Action of Water, to move a Body that makes conſiderable Reſiſtance, we take care to convey it in ſuch a manner, that it ſhall fall upon the Object with Impetuoſity. Now all this happens, in conſequence of our familiar and ready Application of theſe two general Truths. *The Bite of a Viper is mortal. Water falling upon a Body with Impetuoſity, acts very forcibly towards ſetting it in Motion.* In like manner, if we ſet ourſelves to conſider any particular Character, in order to determine the Share of Praiſe or Diſpraiſe that belongs to it, our great Concern is, to aſcertain exactly the Proportion of Virtue and Vice. The Reaſon is obvious. A juſt Determination in all Caſes of this kind, depends entirely upon an Application of theſe general Maxims of Morality: *Virtuous Actions deſerve Praiſe. Vicious Actions deſerve Blame.*

The Steps by which we proceed in the Reaſoning of common Life.

II. HENCE it appears, that Reaſoning as it regards common Life, is no more than the aſcribing the general Properties of things, to thoſe ſeveral Objects with which we are more immediately concerned, according as they are found to be of that particular Diviſion or Claſs, to which the Properties belong. The Steps then by which we proceed are manifeſtly theſe. Firſt, we refer the Object under Conſideration to ſome general Idea or Claſs of Things. We then recollect the ſeveral Attributes of that general Idea. And laſtly, aſcribe all thoſe Attributes to the preſent Object. Thus in conſidering the Character of *Sempronius*, if we find it to be of the kind called *Virtuous*; when we at the ſame time reflect, that a *virtuous* Character is deſerving of Eſteem, it naturally and obviouſly follows, that *Sempronius* is ſo too. Theſe Thoughts put into a *Syllogiſm*, in order to exhibit the Form of Reaſoning here required, run thus.

Every virtuous Man is worthy of Eſteem.
SEMPRONIUS *is a virtuous Man:*
Therefore SEMPRONIUS *is worthy of Eſteem.*

The Connection and Dependence of the two grand Branches of Reaſoning one upon another.

III. BY this *Syllogiſm* it appears, that before we affirm any thing of a particular Object, that Object muſt be referred to ſome general Idea. *Sempronius* is pronounced worthy of Eſteem, only in conſequence of his being a virtuous Man, or coming under that general Notion. Hence we ſee the neceſſary Connection of the various Parts of Reaſoning, and the Dependence they have one upon another. The determining the Genera and Species of Things, is as we have ſaid, one Exerciſe of human Reaſon; and here we find,

that this Exercise is the first in order, and previous to the other, which consists in ascribing to them their Powers, Properties, and Relations. But when we have taken this previous Step, and brought particular Objects under general Names; as the Properties we ascribe to them are no other than those of the general Idea, it is plain, that in order to a successful Progress in this Part of Knowledge, we must thoroughly acquaint ourselves with the several Relations and Attributes of these our general Ideas. When this is done, the other Part will be easy, and require scarce any Labour of Thought, as being no more than an Application of the general Form of Reasoning represented in the foregoing *Syllogism*. Now as we have already sufficiently shewn, how we are to proceed in determining the Genera and Species of things, which as we have said is the previous Step to this second Branch of human Knowledge; all that is farther wanting towards a due Explanation of it is, to offer some Considerations, as to the manner of investigating the general Relations of our Ideas. This is the highest Exercise of the Powers of the Understanding, and that by means whereof we arrive at the Discovery of universal Truths; insomuch that our Deductions in this Way, constitute that particular Species of Reasoning, which we have before said regards principally the Sciences.

Two Things required to make a good Reasoner.

IV. BUT that we may conduct our Thoughts with some Order and Method, we shall begin with observing, that the Relations of our general Ideas are of two Kinds. Either such as immediately discover themselves, upon comparing the Ideas one with another; or such, as being more remote and distant, require Art and Contrivance to bring them into view. The Relations of the first kind, furnish us with intuitive and self-evident Truths: those of the second, are traced by Reasoning, and a due Application of intermediate Ideas. It is of this last kind that we are to speak here, having dispatched what was necessary with regard to the other in the second Part. As therefore in tracing the more distant Relations of Things, we must always have recourse to intervening Ideas, and are more or less successful in our Researches, according to our Acquaintance with these Ideas, and Ability of applying them; it is evident, that to make a good Reasoner, two things are principally required. *First*, an extensive Knowledge of those intermediate Ideas, by means of which things may be compared one with another. *Secondly*, the Skill and Talent of applying them happily, in all particular Instances that come under Consideration.

V. FIRST

RST I ſay, that in order to our ſucceſsful in Reaſoning, we muſt have an exten- wledge of thoſe intermediate Ideas by which things may be compared one with

Firſt, an extenſive Knowledge of intermediate Ideas.

For as it is not every Idea that will e Purpoſe of our Enquiries, but ſuch only as are pecu- ated to the Objects about which we reaſon, ſo as by a on with them, to furniſh evident and known Truths; is more apparent, than that the greater Variety of ons we can call into view, the more likely we are me among them, that will help us to the Truths ired. And indeed it is found to hold in Experience, roportion as we enlarge our Views of Things, and quainted with a Multitude of different Objects, the g Faculty gathers Strength. For by extending our f Knowledge, the Mind acquires a certain Force and on, as being accuſtomed to examine the ſeveral Ap- s of its Ideas, and obſerve what Light they caſt one other.

IND this I take to be the Reaſon, that in excel remarkably in any one Branch of ; it is neceſſary to have at leaſt a general ance with the whole Circle of Arts and

To excel in any one Branch of Learning, we muſt be in general acquainted with the whole Circle of Arts and Sciences.

The Truth of it is, all the various of human Knowledge, are very nearly among themſelves, and in innumerable , ſerve to illuſtrate and ſet off each other. ho' it is not to be denied, that by an obſtinate Ap- to one Branch of Study, a Man may make conſider- greſs, and acquire ſome Degree of Eminence in it; yet s will be always narrow and contracted, and he will at maſterly Diſcernment, which not only enables us e our Diſcoveries with Eaſe, but alſo in laying them others, to ſpread a certain Brightneſs around them. not however here be underſtood to mean, that a ge- owledge alone is ſufficient for all the Purpoſes of Rea- I only recommend it as proper to give the Mind a Sagacity and Quickneſs, and qualify it for judging the ordinary Occurrences of Life. But when our g regards a particular Science, it is farther neceſſary, more nearly acquaint ourſelves with whatever relates to ence. A general Knowledge is a good Preparation, bles us to proceed with Eaſe and Expedition in r Branch of Learning we apply to. But then in the and intricate Queſtions of any Science, we are by no

means qualified to reaſon with Advantage, until we have perfectly maſtered the Science to which they belong; it being hence chiefly, that we are furniſhed with thoſe intermediate Ideas, which lead to a juſt and ſucceſsful Solution.

Why Mathematicians ſometimes anſwer not the Expectation their great Learning raiſes.

VIII. AND here as it comes ſo naturally in my Way, I cannot avoid taking notice of an Obſervation, that is frequently to be met with, and ſeems to carry in it at firſt, ſomething very ſtrange and unaccountable. It is in ſhort this; that *Mathematicians*, even ſuch as are univerſally allowed to excel in their own Profeſſion, and to have diſcovered themſelves perfect Maſters in the Art of Reaſoning, have not yet been always happy in treating upon other Subjects; but rather fallen ſhort, not only of what might naturally have been expected from them, but of many Writers much leſs exerciſed in the Rules of Argumentation. This will not appear ſo very extraordinary, if we reflect on what has been hinted above. *Mathematics* is an engaging Study, and Men who apply themſelves that Way, ſo wholly plunge into it, that they are for the moſt part but little acquainted with other Branches of Knowledge. When therefore they quit their favourite Subject, and enter upon others that are in a manner new and ſtrange to them, no wonder if they find their Invention at a ſtand. Becauſe however perfect they may be in the Art of Reaſoning, yet wanting here thoſe intermediate Ideas, which are neceſſary to furniſh out a due Train of Propoſitions, all their Skill and Ability fails them. For bare Knowledge of the Rules is not ſufficient. We muſt farther have Materials whereunto to apply them. And when theſe are once obtained, then it is that an able Reaſoner diſcovers his Superiority, by the juſt Choice he makes, and a certain maſterly Diſpoſition, that in every Step of the Procedure, carries Evidence and Conviction along with it. And hence it is, that ſuch *Mathematicians* as have of late Years applied themſelves to other Sciences, and not contented with a ſuperficial Knowledge, endeavoured to reach their inmoſt Receſſes; ſuch Mathematicians, I ſay, have by mere Strength of Mind, and a happy Application of *Geometrical* Reaſoning, carried their Diſcoveries far beyond, what was heretofore judged the utmoſt Limits of human Knowledge. This is a Truth abundantly known, to all who are acquainted with the late wonderful Improvements in Natural Philoſophy.

Secondly, the Skill of applying inter-

VIII. I COME now to the ſecond thing required, in order to a ſucceſsful Progreſs in Reaſoning, namely; the Skill and Talent of applying intermediate

mediate Ideas happily, in all particular Inſtances that come under Conſideration. And here I ſhall not take up much time in laying down Rules and Precepts, becauſe I am apt to think they would do but little Service. Uſe and Experience are the beſt Inſtructors in the preſent Caſe: and whatever Logicians may boaſt, of being able to form perfect Reaſoners by Book and Rule, yet we find by Experience, that the Study of their Precepts, does not always add any great Degree of Strength to the Underſtanding. In ſhort, 'tis the Habit alone of Reaſoning, that makes a Reaſoner. And therefore the true Way to acquire this Talent is, by being much converſant in thoſe Sciences, where the Art of Reaſoning is allowed to reign in the greateſt Perfection. Hence it was that the Ancients, who ſo well underſtood the Manner of forming the Mind, always began with *Mathematics*, as the Foundation of their Philoſophical Studies. Here the Underſtanding is by Degrees habituated to Truth, contracts inſenſibly a certain Fondneſs for it, and learns never to yield its Aſſent to any Propoſition, but where the Evidence is ſufficient to produce full Conviction. For this Reaſon *Plato* has called Mathematical Demonſtrations the *Cathartics* or Purgatives of the Soul, as being the proper Means to cleanſe it from Error, and reſtore that natural Exerciſe of its Faculties, in which juſt Thinking conſiſts. And indeed I believe it will be readily allowed, that no Science furniſhes ſo many Inſtances, of a happy Choice of intermediate Ideas, and a dextrous Application of them, for the Diſcovery of Truth, and Enlargement of Knowledge.

Intermediate Ideas happily in particular Inſtances.

IX. IF therefore we would form our Minds to a Habit of Reaſoning cloſely and in train, we cannot take any more certain Method, than the exerciſing ourſelves in Mathematical Demonſtrations, ſo as to contract a kind of Familiarity with them. "Not that we look upon it as neceſſary, "(*to uſe the Words of the great Mr.* Locke) that all Men "ſhould be deep Mathematicians, but that, having got the "Way of Reaſoning which that Study neceſſarily brings the "Mind to, they may be able to transfer it to other Parts of "Knowledge, as they ſhall have Occaſion. For in all ſorts "of Reaſoning, every ſingle Argument ſhould be managed as "a Mathematical Demonſtration, the Connection and Depen-"dence of Ideas ſhould be followed, till the Mind is brought "to the Source on which it bottoms, and can trace the Co-"herence through the whole Train of Proofs. It is in the ge-"neral obſervable, that the Faculties of our Souls are improved

The Study of Mathematical Demonſtrations of great Avail in this Reſpect.

"and

" and made uſeful to us, juſt after the ſame manner, as our " Bodies are. Would you have a Man write or paint, dance " or fence well, or perform any other manual Operation, dex- " terouſly and with Eaſe? Let him have ever ſo much Vigour " and Activity, Suppleneſs and Addreſs naturally, yet nobody " expects this from him unleſs he has been uſed to it, and " has employed Time and Pains in faſhioning and forming " his Hand, or outward Parts, to theſe Motions. Juſt ſo it " is in the Mind; would you have a Man reaſon well, you " muſt uſe him to it betimes, exerciſe his Mind in obſerving " the Connection of Ideas, and following them in train. " Nothing does this better than Mathematics, which there- " fore I think ſhould be taught all thoſe, who have the Time " and Opportunity, not ſo much to make them Mathema- " ticians, as to make them reaſonable Creatures; for though we " all call ourſelves ſo, becauſe we are born to it, if we pleaſe; " yet we may truly ſay, Nature gives us but the Seeds of it. " We are born to be, if we pleaſe, rational Creatures; but 'tis " Uſe and Exerciſe only that makes us ſo, and we are indeed " ſo, no farther than Induſtry and Application has carried us." *Conduct of the Underſtanding.*

As alſo of ſuch Authors on other Subjects, as are diſtinguiſhed for Strength and Juſtneſs of Reaſoning.

X. BUT although the Study of Mathematics, be of all others the moſt uſeful, to form the Mind, and give it an early reliſh of Truth, yet ought not other Parts of Philoſophy to be neglected. For there alſo we meet with many Opportunities of exerciſing the Powers of the Underſtanding; and the Variety of Subjects naturally leads us, to obſerve all thoſe different Turns of Thinking, that are peculiarly adapted to the ſeveral Ideas we examine, and the Truths we ſearch after. A Mind thus trained, acquires a certain Maſtery over its own Thoughts, inſomuch that it can range and model them at pleaſure, and call ſuch into view, as beſt ſuit its preſent Deſigns. Now in this the whole Art of Reaſoning conſiſts, from among a great Variety of different Ideas, to ſingle out thoſe that are moſt proper for the Buſineſs in hand, and to lay them together in ſuch Order, that from plain and eaſy Beginnings, by gentle Degrees, and a continued Train of evident Truths, we may be inſenſibly led on to ſuch Diſcoveries, as at our firſt ſetting out appeared beyond the Reach of human Underſtanding. For this Purpoſe, beſides the Study of Mathematics before recommended, we ought to apply ourſelves diligently to the reading of ſuch Authors, as have diſtinguiſhed themſelves for Strength of Reaſoning, and a juſt and accurate Manner of Thinking. For it is obſervable, that a Mind

Mind exerciſed and ſeaſoned to Truth, ſeldom reſts ſatisfied in a bare Contemplation of the Arguments offered by others, but will be frequently aſſaying its own Strength, and purſuing its Diſcoveries upon the Plan it is moſt accuſtomed to. Thus we inſenſibly contract a Habit, of tracing Truth from one Stage to another, and of inveſtigating thoſe general Relations and Properties, which we afterwards aſcribe to particular Things, according as we find them comprehended under the abſtract Ideas, to which the Properties belong. And thus having particularly ſhewn, how we are to diſtribute the ſeveral Objects of Nature under general Ideas, what Properties we are to aſcribe to them in conſequence of that Diſtribution, and how to trace and inveſtigate the Properties themſelves; I think I have ſufficiently explained all that is neceſſary towards a due Conception of Reaſoning, and ſhall therefore here conclude this Chapter.

CHAP. IV.

Of the Forms of Syllogiſms.

The Figures of Syllogiſms.

I. HITHERTO we have contented ourſelves with a general Notion of Syllogiſms, and of the Parts of which they conſiſt. It is now time to enter a little more particularly into the Subject, to examine their various Forms, and lay open the Rules of Argumentation proper to each. In the Syllogiſms mentioned in the foregoing Chapters, we may obſerve, that the *middle Term* is the Subject of the *Major* Propoſition, and the Predicate of the *Minor*. This Diſpoſition, though the moſt natural and obvious, is not however neceſſary; it frequently happening, that the *middle Term* is the Subject in both the Premiſſes, or the Predicate in both; and ſometimes, directly contrary to its Diſpoſition in the foregoing Chapters, the Predicate in the *Major*, and the Subject in the *Minor*. Hence the Diſtinction of Syllogiſms into various Kinds, called *Figures* by Logicians. For *Figure*, according to their Uſe of the Word, is nothing elſe, but the Order and Diſpoſition of the *middle Term* in any Syllogiſm. And as this Diſpoſition, is we ſee fourfold, ſo the Figures of Syllogiſms thence ariſing, are four in Number. When the *middle Term* is the Subject of the *Major* Propoſition, and the Predicate of the *Minor*, we have what is called the *firſt Figure*. If on the other hand, it is the Predicate of both

both the Premiſſes, the Syllogiſm is ſaid to be in the *ſecond Figure*. Again in the *third Figure*, the *middle Term* is the Subject of the two Premiſſes. And laſtly, by making it the Predicate of the *Major*, and Subject of the *Minor*, we obtain Syllogiſms in the *fourth Figure*.

The Moods of Syllogiſms.

II. BUT beſides this fourfold Diſtinction of Syllogiſms, there is alſo a farther Subdiviſion of them in every Figure, ariſing from the *Quantity* and *Quality* as they are called of the Propoſitions. By *Quantity* we mean the Conſideration of Propoſitions as univerſal or particular, by *Quality* as affirmative or negative. Now as in all the ſeveral Diſpoſitions of the *middle Term*, the Propoſitions of which a Syllogiſm conſiſts, may be either univerſal or particular, affirmative or negative; the due Determination of theſe, and ſo putting them together, as the Laws of Argumentation require, conſtitute what Logicians call the *Moods* of Syllogiſm. Of theſe *Moods* there are a determinate Number to every Figure, including all the poſſible Ways, in which Propoſitions differing in *Quantity* or *Quality* can be combined, according to any Diſpoſition of the *middle Term*, in order to arrive at a juſt Concluſion. The Shortneſs of the preſent Work, will not allow of my entering into a more particular Deſcription, of theſe ſeveral Diſtinctions and Diviſions. I ſhall therefore content myſelf, with referring the Reader to the *Port-Royal Art of Thinking*, where he will find the *Moods* and *Figures* of Syllogiſms diſtinctly explained, and the Rules proper to each very neatly demonſtrated.

Foundation of the other Diviſion of Syllogiſms.

III. THE Diviſion of Syllogiſms, according to Mood and Figure, reſpects thoſe eſpecially, which are known by the Name of plain ſimple Syllogiſms; that is, which are bounded to three Propoſitions, all ſimple, and where the Extremes and middle Term are connected, according to the Rules laid down above. But as the Mind is not tied down to any one preciſe Form of Reaſoning, but ſometimes makes uſe of more, ſometimes of fewer Premiſſes, and often takes in compound and conditional Propoſitions, it may not be amiſs to take notice of the different Forms derived from this Source, and explain the Rules by which the Mind conducts itſelf in the Uſe of them.

Conditional Syllogiſms.

IV. WHEN in any Syllogiſm, the *Major* is a conditional Propoſition, the Syllogiſm itſelf is termed *Conditional*. Thus:

If there is a God, he ought to be worſhiped.
But there is a God:

There-

Therefore he ought to be worſhiped.

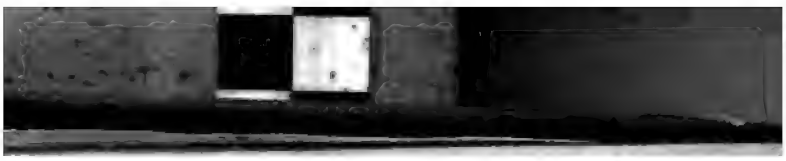
In this Example, the *Major* or firſt Propoſition, is we ſee conditional, and therefore the Syllogiſm itſelf is alſo of the kind, called by that Name. And here we are to obſerve, that all conditional Propoſitions are made of two diſtinct Parts: one expreſſing the Condition upon which the Predicate agrees or diſagrees with the Subject, as in this now before us, *if there is a God*; the other joining or disjoining the ſaid Predicate and Subject, as here, *he ought to be worſhiped.* The firſt of theſe Parts, or that which implies the Condition, is called the *Antecedent*; the ſecond, where we join or disjoin the Predicate and Subject, has the Name of the *Conſequent.*

Ground of Illation in conditional Syllogiſms.

V. THESE Things explained, we are farther to obſerve; that in all Propoſitions of this kind, ſuppoſing them to be exact in point of Form, the Relation between the Antecedent and Conſequent, muſt ever be true and real; that is, the Antecedent muſt always contain ſome certain and genuine Condition, which neceſſarily implies the Conſequent: for otherwiſe, the Propoſition itſelf will be falſe, and therefore ought not to be admitted into our Reaſonings. Hence it follows, that when any conditional Propoſition is aſſumed, if we admit the Antecedent of that Propoſition, we muſt at the ſame time neceſſarily admit the Conſequent; but if we reject the Conſequent, we are in like manner bound to reject the Antecedent. For as the Antecedent always expreſſes ſome Condition, which neceſſarily implies the Truth of the Conſequent; by admitting the Antecedent we allow of that Condition, and therefore ought alſo to admit the Conſequent. In like manner, if it appears that the Conſequent ought to be rejected, the Antecedent evidently muſt be ſo too; becauſe, as was juſt now demonſtrated, the admitting of the Antecedent, would neceſſarily imply the Admiſſion alſo of the Conſequent.

The two Moods of conditional Syllogiſms.

VI. FROM what has been ſaid it appears, that there are two Ways of arguing in *hypothetical* Syllogiſms, which lead to a certain and unavoidable Concluſion. For as the *Major* is always a conditional Propoſition, conſiſting of an Antecedent and a Conſequent; if the *Minor* admits the Antecedent, it is plain that the Concluſion muſt admit the Conſequent. This is called arguing from the Admiſſion of the Antecedent to the Admiſſion of the Conſequent, and conſtitutes that Mood or Species of *hypothetical* Syllogiſms, which is diſtinguiſhed in the Schools by the Name of the *Modus ponens*, inaſmuch



much as by it, the whole conditional Propoſition, both Antecedent and Conſequent, is eſtabliſhed. Thus:

If God is infinitely wiſe, and acts with perfect Freedom, he does nothing but what is beſt.
But God is infinitely wiſe, and acts with perfect Freedom:
Therefore he does nothing but what is beſt.

Here we ſee the Antecedent or firſt Part of the conditional Propoſition is eſtabliſhed in the *Minor*, and the Conſequent or ſecond Part in the Concluſion; whence the Syllogiſm itſelf is an Example of the *Modus ponens*. But if now we on the contrary ſuppoſe, that the *Minor* rejects the Conſequent, then it is apparent, that the Concluſion muſt alſo reject the Antecedent. In this Caſe we are ſaid to argue from the Removal of the Conſequent, to the Removal of the Antecedent, and the particular Mood or Species of Syllogiſms thence ariſing, is called by Logicians the *Modus tollens*; becauſe in it, both Antecedent and Conſequent, are rejected or taken away, as appears by the following Example.

If God were not a Being of infinite Goodneſs, neither would he conſult the Happineſs of his Creatures.
But God does conſult the Happineſs of his Creatures:
Therefore he is a Being of infinite Goodneſs.

They include all the legitimate Ways of Arguing.

VII. THESE two Species take in the whole Claſs of *conditional* Syllogiſms, and include all the poſſible Ways of arguing that lead to a legitimate Concluſion; becauſe we cannot here proceed by a contrary Proceſs of Reaſoning, that is, from the Removal of the Antecedent to the Removal of the Conſequent, or from the eſtabliſhing of the Conſequent to the eſtabliſhing of the Antecedent. For altho' the Antecedent always expreſſes ſome real Condition, which once admitted neceſſarily implies the Conſequent, yet it does not follow that there is therefore no other Condition; and if ſo, then after removing the Antecedent, the Conſequent may ſtill hold, becauſe of ſome other Determination that infers it. When we ſay: *If a Stone is expoſed ſome time to the Rays of the Sun, it will contract a certain Degree of Heat*; the Propoſition is certainly true, and admitting the Antecedent, we muſt alſo admit the Conſequent. But as there are other Ways by which a Stone may gather Heat, it will not follow, from the ceaſing of the before-mentioned Condition, that therefore the Conſequent cannot take place. In other Words, we cannot argue: *But the Stone has not been expoſed to the Rays of the Sun; therefore neither has it any Degree of Heat:* inaſmuch as there are a great many other Ways, by which Heat might have been communicated

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to it. And if we cannot argue from the Removal of the Antecedent to the Removal of the Conſequent, no more can we from the Admiſſion of the Conſequent to the Admiſſion of the Antecedent. Becauſe as the Conſequent may flow from a great Variety of different Suppoſitions, the allowing of it does not determine the preciſe Suppoſition, but only that ſome one of them muſt take place. Thus in the foregoing Propoſition, *If a Stone is expoſed ſome time to the Rays of the Sun, it will contract a certain Degree of Heat:* Admitting the Conſequent, *viz. that it has contracted a certain Degree of Heat*, we are not therefore bound to admit the Antecedent, *that it has been ſome time expoſed to the Rays of the Sun*; becauſe there are many other Cauſes whence that Heat may have proceeded. Theſe two Ways of arguing therefore, hold not in conditional Syllogiſms. Indeed, where the Antecedent expreſſes the only Condition on which the Conſequent takes place, there they may be applied with Safety; becauſe where-ever that Condition is not, we are ſure that neither can the Conſequent be, and ſo reaſon from the Removal of the one to the Removal of the other; as on the contrary, where-ever the Conſequent is, it is certain that the Condition muſt alſo take place; which ſhews, that by eſtabliſhing the Conſequent, we at the ſame time eſtabliſh the Antecedent. But as this is a very particular Caſe, and that happens but ſeldom, it cannot be extended into a general Rule, and therefore affords not any ſteady and univerſal Ground of Reaſoning upon the two foregoing Suppoſitions.

The Manner of arguing in disjunctive Syllogiſms.

V. As from the *Major*'s being a conditional Propoſition, we obtain the Species of conditional Syllogiſms; ſo where it is a disjunctive Propoſition the Syllogiſm to which it belongs is alſo called *Disjunctive*, as in the following Example:

The World is either ſelf-exiſtent, or the Work of ſome finite, or of ſome infinite Being.

But it is not ſelf-exiſtent, nor the Work of a finite Being: Therefore it is the Work of an infinite Being.

Now a disjunctive Propoſition is that, where of ſeveral Predicates, we affirm one neceſſarily to belong to the Subject, to the Excluſion of all the reſt, but leave that particular one undetermined. Hence it follows, that as ſoon as we determine the particular Predicate, all the reſt are of courſe to be rejected; or if we reject all the Predicates but one, that one neceſſarily takes place. When therefore in a *disjunctive* Syllogiſm, the ſeveral Predicates are enumerated in the *Major*; if the *Minor* eſtabliſhes any one of theſe Predicates, the Concluſion

much as by it, the whole conditional Propoſition, both Antecedent and Conſequent, is eſtabliſhed. Thus:

If God is infinitely wiſe, and acts with perfect Freedom, he does nothing but what is beſt.
But God is infinitely wiſe, and acts with perfect Freedom:
Therefore he does nothing but what is beſt.

Here we ſee the Antecedent or firſt Part of the conditional Propoſition is eſtabliſhed in the *Minor*, and the Conſequent or ſecond Part in the Concluſion; whence the Syllogiſm itſelf is an Example of the *Modus ponens*. But if now we on the contrary ſuppoſe, that the *Minor* rejects the Conſequent, then it is apparent, that the Concluſion muſt alſo reject the Antecedent. In this Caſe we are ſaid to argue from the Removal of the Conſequent, to the Removal of the Antecedent, and the particular Mood or Species of Syllogiſms thence ariſing, is called by Logicians the *Modus tollens*; becauſe in it, both Antecedent and Conſequent, are rejected or taken away, as appears by the following Example.

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The Manner of arguing in disjunctive Syllogiſms.

V. As from the *Major*'s being a conditional Propoſition, we obtain the Species of conditional Syllogiſms; ſo where it is a disjunctive Propoſition the Syllogiſm to which it belongs is alſo called *Disjunctive*, as in the following Example:

The World is either ſelf-exiſtent, or the Work of ſome finite, or of ſome infinite Being.

But it is not ſelf-exiſtent, nor the Work of a finite Being: Therefore it is the Work of an infinite Being.

Now a disjunctive Propoſition is that, where of ſeveral Predicates, we affirm one neceſſarily to belong to the Subject, to the Excluſion of all the reſt, but leave that particular one undetermined. Hence it follows, that as ſoon as we determine the particular Predicate, all the reſt are of courſe to be rejected; or if we reject all the Predicates but one, that one neceſſarily takes place. When therefore in a *disjunctive* Syllogiſm, the ſeveral Predicates are enumerated in the *Major*; if the *Minor* eſtabliſhes any one of theſe Predicates, the Concluſion

cluſion ought to remove all the reſt; or if in the *Minor*, all the Predicates but one are removed, the Concluſion muſt neceſſarily eſtabliſh that one. Thus in the *disjunctive* Syllogiſm given above, the *Major* affirms one of three Predicates to belong to the Earth, viz. *Self-exiſtence*, or that it is *the Work of a finite*, or that it is *the Work of an infinite Being*. Two of theſe Predicates are removed in the *Minor*, viz. *Self-exiſtence*, and *the Work of a finite Being*. Hence the Concluſion neceſſarily aſcribes to it the third Predicate, and affirms that it is *the Work of an infinite Being*. If now we give the Syllogiſm another Turn, inſomuch that the Minor may eſtabliſh one of the Predicates, by affirming the Earth to be *the Production of an infinite Being*; then the Concluſion muſt remove the other two, aſſerting it to be neither *ſelf-exiſtent*, nor *the Work of a finite Being*. Theſe are the Forms of Reaſoning in theſe Species of Syllogiſms, the Juſtneſs of which appears at firſt Sight; and that there can be no other, is evident from the very Nature of a disjunctive Propoſition.

Imperfect or mutilated Syllogiſms.

IX. IN the ſeveral Kinds of Syllogiſms hitherto mentioned, we may obſerve, that the Parts are compleat; that is, the three Propoſitions of which they conſiſt, are repreſented in Form. But it often happens, that ſome one of the Premiſſes is not only an evident Truth, but alſo familiar and in the Minds of all Men; in which Caſe it is uſually omitted, whereby we have an imperfect Syllogiſm, that ſeems to be made up of only two Propoſitions. Should we for inſtance argue in this manner:

Every Man is mortal:
Therefore every King is mortal.

The Syllogiſm appears to be imperfect, as conſiſting but of two Propoſitions. Yet it is really compleat, only the *Minor* [*Every King is a Man*] is omitted, and left to the Reader to ſupply, as being a Propoſition ſo familiar and evident, that it cannot eſcape him.

Enthymems.

X. THESE ſeemingly imperfect Syllogiſms are called *Enthymenes*, and occur very frequently in Reaſoning, eſpecially where it makes a Part of common Converſation. Nay there is a particular Elegance in them, becauſe not diſplaying the Argument in all its Parts, they leave ſomewhat to the Exerciſe and Invention of the Mind. By this Means we are put upon exerting ourſelves, and ſeem to ſhare in the Diſcovery of what is propoſed to us. Now this is the great Secret of fine Writing, ſo to frame and put together our Thoughts, as to give full Play to the Reader's Imagination, and draw him inſenſibly into our very Views and

Courſe

Reaſoning. This gives a Pleaſure not unlike to that Author himſelf feels in compoſing. It beſides ſhort-urſe, and adds a certain Force and Livelineſs to ents, when the Words in which they are conveyed, natural Quickneſs of the Mind in its Operations, le Expreſſion is left to exhibit a whole Train of

r there is another Species of Reaſoning Propoſitions, which ſeems to be com- elf, and where we admit the Conclu- ut ſuppoſing any tacit or ſuppreſſed in the Mind, from which it follows ſyllogiſtically. ns between Propoſitions, where the Connection is the Admiſſion of the one, neceſſarily and at the firſt s, the Admiſſion alſo of the other. For if it ſo falls he Propoſition on which the other depends is ſelf- e content ourſelves with barely affirming it, and other by a direct Concluſion. Thus by admitting al Propoſition, we are forced alſo to admit of all the Propoſitions comprehended under it, this being the ition that conſtitutes a Propoſition univerſal. If then ſal Propoſition chances to be ſelf-evident, the par- s follow of courſe, without any farther Train of

Ground of Reaſoning in immediate Conſequences.

Whoever allows for inſtance, *that Things equal the ſame Thing are equal to one another*, muſt at the allow, *that two Triangles, each equal to a Square is three Inches, are alſo equal between themſelves.* ument therefore,

s equal to one and the ſame Thing are equal to one an- r:

fore theſe two Triangles, each equal to the Square of a e of three Inches, are equal between themſelves,

e in its Kind, and contains all that is neceſſary to- ſt and legitimate Concluſion. For the firſt or uni- oſition is ſelf-evident, and therefore requires no far-

And as the Truth of the Particular is inſeparably with that of the Univerſal, it follows from it by an d unavoidable Conſequence.

ow in all Caſes of this kind, where s are deduced one from another, on f a known and evident Connection, we reaſon by *immediate Conſequence*. Such ce of Propoſitions, manifeſt at firſt ſight, and for- upon the Mind, frequently occurs in Reaſoning. have explained at ſome length, the ſeveral Suppoſi-

All reducible to Syllogiſms of ſome one Form or other.

tions upon which it takes place, and allow of all *immediate Conſequences* that follow in Conformity to them. It is however obſervable, that theſe Arguments, tho' ſeemingly complete, becauſe the Concluſion follows neceſſarily from the ſingle Propoſition that goes before, may yet be conſidered as real *Enthymemes*, whoſe *Major*, which is a conditional Propoſition, is wanting. The Syllogiſm but juſt mentioned, when repreſented according to this View, will run as follows:

If Things equal to one and the ſame Thing are equal to one another; theſe two Triangles, each equal to a Square whoſe Side is three Inches, are alſo equal between themſelves.

But Things equal to one and the ſame Thing, are equal to one another:

Therefore alſo theſe Triangles, &c. *are equal between themſelves.*

This Obſervation will be found to hold in all *immediate Conſequences* whatſoever, inſomuch that they are in Fact no more than *Enthymemes* of hypothetical Syllogiſms. But then it is particular to them, that the Ground on which the Concluſion reſts, namely its Coherence with the *Minor*, is of itſelf apparent, and ſeen immediately to flow from the Rules and Reaſons of Logick. As it is therefore entirely unneceſſary to expreſs a ſelf-evident Connection, the *Major*, whoſe Office that is, is conſtantly omitted; nay and ſeems ſo very little needful to enforce the Concluſion, as to be accounted commonly no Part of the Argument at all. It muſt indeed be owned, that the foregoing *immediate Conſequence*, might have been reduced to a *ſimple*, as well as an *hypothetical Syllogiſm*. This will be evident to any one who gives himſelf the Trouble to make the Experiment. But it is not my Deſign to enter farther into theſe Niceties, what has been ſaid ſufficing to ſhew, that all Arguments conſiſting of but two Propoſitions, are real *Enthymemes*, and reducible to complete Syllogiſms of ſome one Form or other. As therefore the Ground on which the Concluſion reſts, muſt needs be always the ſame with that of the Syllogiſms to which they belong, we have here an univerſal Criterion, whereby at all times to aſcertain the Juſteſs and Validity of our Reaſonings in this Way.

A Sorites of plain ſimple Syllogiſms.

XIII. THE next Species of Reaſoning we ſhall take notice of here, is what is commonly known by the Name of a *Sorites*. This is a Way of arguing, in which a great Number of Propoſitions are ſo linked together, that the Predicate of one, becomes continually the Subject of the next following, until

aft a Concluſion is formed, by bringing together the Subject the firſt Propoſition, and the Predicate of the laſt. Of this d is the following Argument.

God is omnipotent.
An omnipotent Being can do every thing poſſible.
He that can do every thing poſſible, can do whatever involves not a Contradiction
Therefore God can do whatever involves not a Contradiction.

This particular Combination of Propoſitions, may be conti-ed to any Length we pleaſe, without in the leaſt weaken-; the Ground upon which the Concluſion reſts. The Rea-i is, becauſe the *Sorites* itſelf may be reſolved into as many ıple Syllogiſms, as there are middle Terms in it; where s is found univerſally to hold, that when ſuch a Reſolution made, and the Syllogiſms are placed in train, the Con-ſion of the laſt in the Series, is alſo the Concluſion of the *·ites.* This kind of Argument therefore, as it ſerves to ite ſeveral Syllogiſms into one, muſt ſtand upon the ſame ıundation with the Syllogiſms of which it conſiſts, and is leed, properly ſpeaking, no other than a compendious ay of Reaſoning ſyllogiſtically. Any one may be ſatisfied this at pleaſure, if he but takes the Trouble of reſolving e foregoing Sorites into two diſtinct Syllogiſms. For he ll there find, that he arrives at the ſame Concluſion, and at too by the very ſame Train of Thinking, but with abun-ntly more Words, and the Addition of two ſuperfluous Pro-ſitions.

XIV. WHAT is here ſaid of plain ſimple Pro-ſitions, may be as well applied to thoſe that are nditional; that is, any Number of them may be joined together in a Series, that the Conſequent one, ſhall become continually the Antecedent of the next llowing; in which Caſe, by eſtabliſhing the Antecedent of e firſt Propoſition, we eſtabliſh the Conſequent of the laſt, by removing the laſt Conſequent, remove alſo the firſt Ante-dent. This Way of Reaſoning is exemplified in the follow-g Argument. *A Sorites of hypothetical Syllogiſms.*

If we love any Perſon, all Emotions of Hatred towards him ceaſe.
If all Emotions of Hatred towards a Perſon ceaſe, we cannot rejoice in his Misfortunes.
If we rejoice not in his Misfortune, we certainly wiſh him no Injury.
Therefore if we love a Perſon, we wiſh him no Injury.

It is evident that this *Sorites*, as well as the laſt, may be reſolved into a Series of diſtinct Syllogiſms, with this only Difference, that here the Syllogiſms are all conditional. But as the Concluſion of the laſt Syllogiſm in the Series, is the ſame with the Concluſion of the *Sorites*, it is plain, that this alſo is a compendious Way of Reaſoning, whoſe Evidence ariſes from the Evidence of the ſeveral ſingle Syllogiſms, into which it may be reſolved.

The Ground of Reaſoning by Induction.

XV. I COME now to that kind of Argument, which Logicians call *Induction*; in order to the right underſtanding of which, it will be neceſſary to obſerve, that our general Ideas are for the moſt part capable of various Subdiviſions. Thus the Idea of the loweſt Species, may be ſubdivided into its ſeveral Individuals, the Idea of any Genus, into the different Species it comprehends, and ſo of the reſt. If then we ſuppoſe this Diſtribution to be duly made, and ſo as to take in the whole Extent of the Idea to which it belongs; then it is plain, that all the Subdiviſions or Parts of any Idea taken together, conſtitute that whole Idea. Thus the ſeveral Individuals of any Species taken together, conſtitute the whole Species, and all the various Species comprehended under any Genus, make up the whole Genus. This being allowed, it is apparent, that whatever may be affirmed of all the ſeveral Subdiviſions and Claſſes of any Idea, ought to be affirmed of the whole general Idea, to which theſe Subdiviſions belong. What may be affirmed of all the Individuals of any Species, may be affirmed of the whole Species; and what may be affirmed of all the Species of any Genus, may be alſo affirmed of the whole Genus; becauſe all the Individuals taken together, are the ſame with the Species, and all the Species taken together, the ſame with the Genus.

The Form and Structure of an Argument by Induction.

XVI. THIS Way of arguing, where we infer univerſally concerning any Idea, what we had before affirmed or denied ſeparately, of all its ſeveral Subdiviſions and Parts, is called Reaſoning by *Induction*. Thus if we ſuppoſe the whole Tribe of Animals, ſubdivided into Men, Beaſts, Birds, Inſects, and Fiſhes, and then reaſon concerning them after this manner: *All Men have a Power of beginning Motion; all Beaſts, Birds and Inſects, have a Power of beginning Motion; all Fiſhes have a Power of beginning Motion; therefore all Animals have a Power of beginning Motion.* The Argument is an *Induction*. When the Subdiviſions are juſt, ſo as to take in the whole general Idea, and the Enumeration is perfect, that

is,

s, extends to all and every of the inferior Claſſes or Parts; here the *Induction* is complete, and the manner of Reaſoning by *Induction*, is apparently concluſive.

The Ground of Argumentation in a Dilemma.

XVII. THE laſt Species of Syllogiſms I ſhall take notice of in this Chapter, is that commonly diſtinguiſhed by the Name of a *Dilemma*. A *Dilemma* is an Argument, by which we endeavour to prove the Abſurdity or Falſhood of ſome Aſſertion. In order to this we aſſume a conditional Propoſition, the Antecedent of which is the Aſſertion to be diſproved, and the Conſequent a disjunctive Propoſition, enumerating all the poſſible Suppoſitions upon which that Aſſertion can take place. If then it appears, that all theſe ſeveral Suppoſitions ought to be rejected, it is plain, that the Antecedent or Aſſertion itſelf, muſt be ſo too. When therefore ſuch a Propoſition as that before-mentioned, is made the *Major* of any Syllogiſm; if the *Minor* rejects all the Suppoſitions contained in the Conſequent, it follows neceſſarily, that the Concluſion ought to reject the Antecedent, which, as we have ſaid, is the very Aſſertion to be diſproved. This particular Way of arguing, is that which Logicians call a *Dilemma*; and from the Account here given of it, it appears, that we may in the general define it, to be *a hypothetical Syllogiſm, where the Conſequent of the Major is an disjunctive Propoſition, which is wholly taken away or removed in the Minor.* Of this kind is the following:

If God did not create the World perfect in its kind, it muſt either proceed from want of Inclination, or from want of Power.

But it could not proceed either from want of Inclination, or from want of Power.

Therefore he created the World perfect in its kind. Or, which is the ſame thing: *'Tis abſurd to ſay that he did not create the World perfect in its kind.*

An univerſal Deſcription of it.

XVIII. THE Nature then of a *Dilemma* is univerſally this. The *Major* is a conditional Propoſition, whoſe Conſequent contains all the ſeveral Suppoſitions upon which the Antecedent can take place. As therefore theſe Suppoſitions are wholly removed in the *Minor*, it is evident that the Antecedent muſt be ſo too; inſomuch that we here always argue from the Removal of the Conſequent, to the Removal of the Antecedent. That is, a *Dilemma* is an Argument, in the *modus tollens* of hypothetical Syllogiſms, as Logicians love to ſpeak. Hence it is plain, that the Antecedent of the

Major is an affirmative Propoſition, the Concluſion of the *Dilemma* will be negative; but if it is a negative Propoſition, the Concluſion will be affirmative. I cannot diſmiſs this Subject without obſerving, that as there is ſomething very curious and entertaining in the Structure of a *Dilemma*, ſo is it a manner of Reaſoning, that occurs frequently in Mathematical Demonſtrations. Nothing is more common with *Euclid*, when about to ſhew the Equality of two given Figures, or which is the ſame thing, to prove the Abſurdity of aſſerting them unequal; nothing I ſay is more common with him than to aſſume, *that if the one is not equal to the other, it muſt be either greater or leſs:* And having deſtroyed both theſe Suppoſitions, upon which alone the Aſſertion can ſtand, he thence very naturally infers, that the Aſſertion itſelf is falſe. Now this is preciſely the Reaſoning of a *Dilemma*, and in every Step coincides with the Frame and Compoſition of that Argument, as we have deſcribed it above.

CHAP. V.

Of DEMONSTRATION.

Of Reaſoning by a Concatenation of Syllogiſms.

I. HAVING diſpatched what ſeemed neceſſary to be ſaid with regard to the Forms of Syllogiſms, we now proceed to explain their Uſe and Application in Reaſoning. We have ſeen, that in all the different Appearances they put on, we ſtill arrive at a juſt and legitimate Concluſion: Now it often happens, that the Concluſion of one Syllogiſm, becomes a previous Propoſition in another, by which means great Numbers of them are ſometimes linked together in a Series, and Truths are made to follow one another in train. And as in ſuch a Concatenation of Syllogiſms, all the various Ways of Reaſoning that are truly concluſive, may be with Safety introduced; hence it is plain, that in deducing any Truth from its firſt Principles, eſpecially where it lies at a conſiderable Diſtance from them, we are at Liberty to combine all the ſeveral kinds of Arguments above explained, according as they are found beſt to ſuit the End and Purpoſe of our Enquiries. When a Propoſition is thus by means of Syllogiſms, collected from others more evident and known, it is ſaid to be *proved*; ſo that we may in the general define

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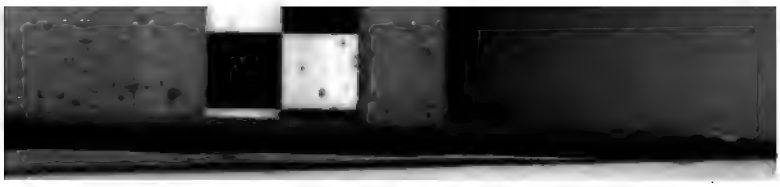
the Proof of a Propoſition, to be a Syllogiſm, or Series of Syllogiſms, collecting that Propoſition from known and evident Truths. But more particularly, if the Syllogiſms of which the Proof conſiſts, admit of no Premiſſes but Definitions, ſelf-evident Truths, and Propoſitions already eſtabliſhed, then is the Argument ſo conſtituted called a *Demonſtration*; whereby it appears, that Demonſtrations are ultimately founded on Definitions, and ſelf-evident Propoſitions.

All Syllogiſms whatſoever reducible to the firſt Figure.

II. BUT as a Demonſtration oft-times conſiſts of a long Chain of Proofs, where all the various Ways of arguing have place, and where the Ground of Evidence muſt of courſe be different in different Parts, agreeably to the Form of the Argument made uſe of; it may not perhaps be unacceptable, if we here endeavour to reduce the Evidence of Demonſtration to one ſimple Principle, whence as a ſure and unalterable Foundation, the Certainty of it may in all Caſes be derived. In order to this we muſt obſerve, that all Syllogiſms whatſoever, whether compound, multiform, or defective, are reducible to plain ſimple Syllogiſms in ſome one of the four Figures. But this is not all. Syllogiſms of the firſt Figure in particular, admit of all poſſible Concluſions; that is, any Propoſition whatſoever, whether an univerſal Affirmative, or univerſal Negative, a particular Affirmative, or particular Negative, which fourfold Diviſion, as we have already demonſtrated, in the ſecond Part, embraces all their Varieties; any one I ſay of theſe may be inferred, by virtue of ſome Syllogiſm in the firſt Figure. By this means it happens, that the Syllogiſms of all the other Figures, are reducible alſo to Syllogiſms of the firſt Figure, and may be conſidered as ſtanding on the ſame Foundation with them. We cannot here demonſtrate and explain the manner of this Reduction, becauſe it would too much ſwell the Bulk of this Treatiſe. It is enough to take notice, that the thing is univerſally known and allowed among Logicians, to whoſe Writings we refer ſuch as deſire farther Satisfaction in this Matter. This then being laid down, it is plain, that any Demonſtration whatſoever, may be conſidered as compoſed of a Series of Syllogiſms, all in the firſt Figure. For ſince all the Syllogiſms that enter the Demonſtration, are reducible to Syllogiſms of ſome one of the four Figures, and ſince the Syllogiſms of all the other Figures are farther reducible to Syllogiſms of the firſt Figure, it is evident, that the whole Demonſtration may be reſolved into a Series of theſe laſt Syllogiſms. Let us now, if poſſible, diſcover the Ground, upon



which the Conclusion rests, in Syllogisms of the first Figure; because by so doing, we shall come at an universal Principle or Certainty, whence the Evidence of all Demonstrations in all their parts may be ultimately derived.

III. THE Rules then of the first Figure are briefly these. The *middle Term* is the Subject of the Major Proposition, and the Predicate of the [illegible]. The *Major* is always an universal Proposition, and the *Minor* always affirmative. Let us now see what Effect these Rules will have in Reasoning. The Major is an universal Proposition, of which the [illegible] Subject, and the *Predicate of the Conclusion* [illegible]. Hence it appears, that in the *Major*, the *Predicate* [illegible] is always affirmed or denied univer[illegible] Term. Again, the *Minor* is an affirma[illegible] the *Subject of the Conclusion* is the [illegible] the Predicate. Here then the [illegible] *Subject of the Conclusion*; that [illegible] affirmed to be comprehend[illegible] *middle Term*. Thus then [illegible] of a Syllogism of the [illegible] Conclusion is universally [illegible] The *Subject of the Conclu*[illegible] a Part of that Idea. Hence [illegible] that the *Predicate of the* [illegible] of the Subject. To [illegible] we shall resume one of the Syl-

[illegible] *and Liberty is accountable*

[illegible] *and Liberty:*
[illegible] *Actions.*

[illegible] Predicate of the Conclu[illegible] all Creatures that have [illegible] the second Proposition, [illegible] is affirmed to be, or to [illegible] Creatures. Hence the Con[illegible] follows, *viz. that Man* [illegible] I say this follows necessarily [illegible] Reason and Liberty be that [illegible], and *Man* has Reason [illegible] that which constitutes him *ac*[illegible] where the *Major* is a negative [illegible] *Predicate of the Conclusion* univer[illegible] as the *Minor* always asserts the *Subject*

Subject of the Concluſion, to be or make a Part of that *middle Term*, it is no leſs evident, that the *Predicate of the Concluſion*, ought in this Caſe to be denied of the *Subject*. So that the Ground of Reaſoning in all Syllogiſms of the firſt Figure, is manifeſtly this: *Whatever may be affirmed univerſally of any Idea, may be affirmed of every or any Number of Particulars comprehended under that Idea.* And again: *Whatever may be denied univerſally of any Idea, may be in like manner denied, of every or any Number of its Individuals.* Theſe two Propoſitions, are called by Logicians, the *Dictum de omni*, and *Dictum de nullo*, and are indeed the great Principles of ſyllogiſtic Reaſoning; inaſmuch as all Concluſions whatſoever, either reſt immediately upon them, or upon Propoſitions deduced from them. But what adds greatly to their Value is, that they are really ſelf-evident Truths, and ſuch as we cannot gainſay, without running into an expreſs Contradiction. To affirm for inſtance, that *No Man is perfect*, and yet argue that *Some Men are perfect*; or to ſay that *All Men are mortal*, and yet that *Some Men are not mortal*, is to aſſert a thing to be and not to be at the ſame time.

Demonſtration an infallible Guide to Truth and Certainty.

IV. AND now I think we are ſufficiently authorized to affirm, that all Syllogiſms of the firſt Figure, if the *Premiſſes* are true, the *Concluſion* muſt needs be true. If it be true that the *Predicate of the Concluſion*, whether affirmative or negative, agrees univerſally to ſome Idea, and if it be alſo true, that the *Subject of the Concluſion*, is a Part of or comprehended under that Idea, then it neceſſarily follows, that the *Predicate of the Concluſion*, agrees alſo to the *Subject*. For to aſſert the contrary, would be to run counter to ſome one of the two Principles before eſtabliſhed; that is, it would be to maintain an evident Contradiction. And thus we are come at laſt to the Point we have been all along endeavouring to eſtabliſh, namely; that every Propoſition which can be demonſtrated is neceſſarily true. For as every Demonſtration may be reſolved into a Series of Syllogiſms all in the firſt Figure, and as in any one of theſe Syllogiſms, if the Premiſſes are true, the Concluſion muſt needs be ſo too; it evidently follows, that if all the ſeveral Premiſſes are true, all the ſeveral Concluſions are ſo, and conſequently the Concluſion alſo of the laſt Syllogiſm, which is always the Propoſition to be demonſtrated. Now that all the Premiſſes of a Demonſtration are true, will eaſily appear, from the very Nature and Definition of that Form of Reaſoning.

which the Concluſion reſts, in Syllogiſms of the firſt Figure; becauſe, by ſo doing, we ſhall come at an univerſal Principle of Certainty, whence the Evidence of all Demonſtrations in all their Parts may be ultimately derived.

The Ground of Reaſoning in the firſt Figure.

III. THE Rules then of the firſt Figure are briefly theſe. The *middle Term* is the Subject of the *Major* Propoſition, and the Predicate of the *Minor*. The *Major* is always an univerſal Propoſition, and the *Minor* always affirmative. Let us now ſee what Effect theſe Rules will have in Reaſoning. The *Major* is an univerſal Propoſition, of which the *middle Term* is the Subject, and the *Predicate of the Concluſion* the Predicate. Hence it appears, that in the *Major*, the *Predicate of the Concluſion* is always affirmed or denied univerſally of the *middle Term*. Again, the *Minor* is an affirmative Propoſition, whereof the *Subject of the Concluſion* is the Subject, and the *middle Term* the Predicate. Here then the *middle Term* is affirmed of the *Subject of the Concluſion*; that is, the *Subject of the Concluſion* is affirmed to be comprehended under, or to make a Part of the *middle Term*. Thus then we ſee what is done in the *Premiſſes* of a Syllogiſm of the firſt Figure. The *Predicate of the Concluſion* is univerſally affirmed or denied of ſome Idea. The *Subject of the Concluſion* is affirmed to be or to make a Part of that Idea. Hence it naturally and unavoidably follows, that the *Predicate of the Concluſion*, ought to be affirmed or denied of the Subject. To illuſtrate this by an Example, we ſhall reſume one of the Syllogiſms of the firſt Chapter.

Every Creature poſſeſſed of Reaſon and Liberty is accountable for his Actions.
Man is a Creature poſſeſſed of Reaſon and Liberty:
Therefore Man is accountable for his Actions.

Here in the firſt Propoſition, the Predicate of the Concluſion *Accountableneſs*, is affirmed of all Creatures that have *Reaſon and Liberty*. Again in the ſecond Propoſition, *Man*, the Subject of the Concluſion, is affirmed to be, or to make a Part of this Claſs of Creatures. Hence the Concluſion neceſſarily and unavoidably follows, *viz. that Man is accountable for his Actions.* I ſay this follows neceſſarily and unavoidably. Becauſe if Reaſon and Liberty be that which conſtitutes a Creature *accountable*, and *Man* has Reaſon and Liberty, 'tis plain he has that which conſtitutes him *accountable*. In like manner, where the *Major* is a negative Propoſition, or denies the *Predicate of the Concluſion* univerſally of the *middle Term*, as the *Minor* always aſſerts the

Subject

Subject of the Concluſion, to be or make a Part of that *middle Term*, it is no leſs evident, that the *Predicate of the Concluſion*, ought in this Caſe to be denied of the *Subject*. So that the Ground of Reaſoning in all Syllogiſms of the firſt Figure, is manifeſtly this. *Whatever may be affirmed univerſally of any Idea, may be affirmed of every or any Number of Particulars comprehended under that Idea.* And again: *Whatever may be denied univerſally of any Idea, may be in like manner denied, of every or any Number of its Individuals.* Theſe two Propoſitions, are called by Logicians, the *Dictum de omni*, and *Dictum de nullo*, and are indeed the great Principles of ſyllogiſtic Reaſoning; inaſmuch as all Concluſions whatſoever, either reſt immediately upon them, or upon Propoſitions deduced from them. But what adds greatly to their Value is, that they are really ſelf-evident Truths, and ſuch as we cannot gainſay, without running into an expreſs Contradiction. To affirm for inſtance, that *No Man is perfect*, and yet argue that *Some Men are perfect*; or to ſay that *All Men are mortal*, and yet that *Some Men are not mortal*, is to aſſert a thing to be and not to be at the ſame time.

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ſoning. A Demonſtration as we have ſaid, is a Series of Syllogiſms, all whoſe Premiſſes are either Definitions, ſelf-evident Truths, or Propoſitions already eſtabliſhed. Definitions are identical Propoſitions, wherein we connect the Deſcription of an Idea, with the Name by which we chuſe to have that Idea called; and therefore as to their Truth there can be no Diſpute. Self-evident Propoſitions appear true of themſelves, and leave no Doubt or Uncertainty in the Mind. Propoſitions before eſtabliſhed, are no other than Concluſions, gained by one or more Steps, from Definitions and ſelf-evident Principles; that is, from true Premiſſes, and therefore muſt needs be true. Whence all the previous Propoſitions of a Demonſtration, being we ſee manifeſtly true, the laſt Concluſion, or Propoſition to be demonſtrated, muſt be ſo too. So that Demonſtration not only leads to certain Truth, but we have here alſo a clear View, of the Ground and Foundation of that Certainty. For as in demonſtrating, we may be ſaid to do nothing more, than combine a Series of Syllogiſms together, all reſting on the ſame Bottom; it is plain, that one uniform Ground of Certainty runs thro' the whole, and that the Concluſions are every where built upon ſome one of the two Principles before eſtabliſhed as the Foundation of all our Reaſoning. Theſe two Principles are eaſily reduced into one, and may be expreſſed thus. *Whatever Predicate, whether affirmative or negative, agrees univerſally to any Idea, the ſame muſt needs agree to every or any Number of Individuals, comprehended under that Idea.* And thus at length we have, according to our firſt Deſign, reduced the Certainty of Demonſtration to one ſimple and univerſal Principle, which carries its own Evidence along with it, and which is indeed the ultimate Foundation of all ſyllogiſtic Reaſoning.

The Rules of Logick furniſh a ſufficient Criterion for the diſtinguiſhing between Truth and Falſhood.

V. DEMONSTRATION therefore, ſerving as an infallible Guide to Truth, and ſtanding on ſo ſure and unalterable a Baſis, we may now venture to aſſert, what I doubt not will appear a Paradox to many, namely; that the Rules of Logick furniſh a ſufficient *Criterion*, for the diſtinguiſhing between Truth and Falſhood. For ſince every Propoſition that can be demonſtrated, is neceſſarily true, he is able to diſtinguiſh Truth from Falſhood, who can with Certainty judge, when a Propoſition is duely demonſtrated. Now a Demonſtration is, as we have ſaid, nothing more than a Concatenation of Syllogiſms, all whoſe Premiſſes are Definitions, ſelf-evident Truths, or Pro-

Propoſitions previouſly eſtabliſhed. To judge therefore of the Validity of a Demonſtration, we muſt be able to diſtinguiſh, whether the Definitions that enter it are genuine, and truely deſcriptive of the Ideas they are meant to exhibit; whether the Propoſitions aſſumed without Proof as intuitive Truths, have really that Self-evidence to which they lay claim: whether the Syllogiſms are drawn up in due Form, and agreeable to the Laws of Argumentation: in fine, whether they are combined together in a juſt and orderly Manner, ſo that no demonſtrable Propoſitions ſerve any where as Premiſſes, unleſs they are Concluſions of previous Syllogiſms. Now it is the Buſineſs of Logick, in explaining the ſeveral Operations of the Mind, fully to inſtruct us in all theſe Points. It teaches the Nature and End of Definitions, and lays down the Rules by which they ought to be framed. It unfolds the ſeveral Species of Propoſitions, and diſtinguiſhes the ſelf-evident from the demonſtrable. It delineates alſo the different Forms of Syllogiſms, and explains the Laws of Argumentation proper to each. In fine, it deſcribes the Manner of combining Syllogiſms, ſo as that they may form a Train of Reaſoning, and lead to the ſucceſſive Diſcovery of Truth. The Precepts of Logick therefore, as they enable us to judge with Certainty, when a Propoſition is duely demonſtrated, furniſh a ſure *Criterion*, for the diſtinguiſhing between Truth and Falſhood.

And extending to all Caſes where a certain Knowledge of Truth is attainable.

VI. BUT perhaps it may be objected, that Demonſtration is a thing very rare and uncommon, as being the Prerogative of but a few Sciences, and therefore the *Criterion* here given, can be of no great Uſe. I anſwer, that where-ever by the bare Contemplation of our Ideas, Truth is diſcoverable, there alſo Demonſtration may be attained. Now that I think is an abundantly ſufficient *Criterion*, which enables us to judge with Certainty, in all Caſes where the Knowledge of Truth comes within our reach; for with Diſcoveries, that lie beyond the Limits of the human Mind, we have properly no Buſineſs nor Concernment. When a Propoſition is demonſtrated, we are certain of its Truth. When on the contrary our Ideas are ſuch, as have no viſible Connection nor Repugnance, and therefore furniſh not the proper Means of tracing their Agreement or Diſagreement, there we are ſure that Knowledge, *Scientifical* Knowledge I mean, is not attainable. But where there is ſome Foundation of Reaſoning, which yet amounts not to the full Evidence of Demonſtration, there the Precepts of Logick, by teaching

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us to determine aright of the Degree of Proof, and of what is ſtill wanting to render it full and complete, enable us to make a due Eſtimate of the Meaſures of Probability, and to proportion our Aſſent to the Grounds on which the Propoſition ſtands. And this is all we can poſſibly arrive at, or even ſo much as hope for, in the Exerciſe of Faculties ſo imperfect and limited as ours. For it were the height of Folly to expect a *Criterion*, that ſhould enable us to diſtinguiſh Truth from Falſhood, in Caſes where a certain Knowledge of Truth is not attainable.

The Diſtinction of Demonſtration into direct and indirect.

VII. WE have now done with what regards the Ground and Evidence of Demonſtration; but before we conclude this Chapter, it may not be improper to take notice of the Diſtinction of it into *direct* and *indirect*. A *direct Demonſtration* is, when beginning with Definitions, ſelf-evident Propoſitions, or known and allowed Truths, we form a Train of Syllogiſms, and combine them in an orderly Manner, continuing the Series thro' a Variety of ſucceſſive Steps, until at laſt we arrive at a Syllogiſm, whoſe Concluſion is the Propoſition to be demonſtrated. Proofs of this Kind, leave no Doubt or Uncertainty behind them, becauſe all the ſeveral Premiſſes being true, the Concluſions muſt be ſo too, and of courſe the very laſt Concluſion, or Propoſition to be proved. I ſhall not therefore any farther enlarge upon this Method of Demonſtrating, having I hope ſufficiently explained it in the foregoing Part of this Chapter, and ſhewn wherein the Force and Validity of it lies. The other Species of Demonſtration is the *indirect*, or, as it is ſometimes called, the *Apogogical*. The Manner of proceeding here is, by aſſuming a Propoſition which directly contradicts that we mean to demonſtrate, and thence by a continued Train of Reaſoning, in the Way of a direct Demonſtration, deducing ſome Abſurdity or manifeſt Untruth. For hereupon we conclude that the Propoſition aſſumed was falſe, and thence again by an immediate Conſequence, that the Propoſition to be demonſtrated is true. Thus *Euclid* in his third Book being to demonſtrate, *that Circles which touch one another inwardly have not the ſame Center*, aſſumes the direct contrary to this, *viz. that they have the ſame Center*, and thence by an evident Train of Reaſoning proves, *that a Part is equal to the Whole*. The Suppoſition therefore leading to this Abſurdity he concludes to be falſe, *viz. that Circles touching one another inwardly have the ſame Center*, and thence again immediately infers, *that they have not the ſame Center*.

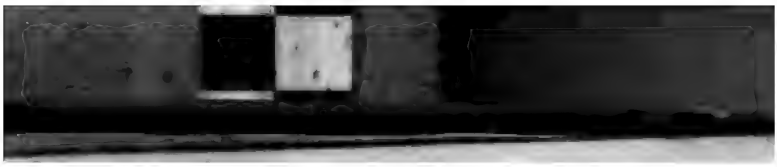
VIII. Now

VIII. Now becauſe this Manner of Demonſtration, is accounted by ſome, not altogether ſo clear and ſatisfactory, nor to come up to that full Degree of Evidence, which we meet with in the direct Way of Proof; I ſhall therefore endeavour here to give a particular Illuſtration of it, and to ſhew, that it equally with the other leads to Truth and Certainty. In order to this we muſt obſerve, that two Propoſitions are ſaid to be *Contradictory* one of another, when that which is aſſerted to be in the one, is aſſerted not to be in the other. Thus the Propoſitions: *Circles that touch one another inwardly have the ſame Center: and Circles that touch one another inwardly have not the ſame Center:* are *Contradictories*; becauſe the ſecond aſſerts the direct contrary of what is aſſerted in the firſt. Now in all contradictory Propoſitions this holds univerſally, that one of them is neceſſarily true, and the other neceſſarily falſe. For if it be true, that Circles which touch one another inwardly have not the ſame Center, it is unavoidably falſe that they have the ſame Center. On the other hand, if it be falſe that they have the ſame Center, it is neceſſarily true that they have not the ſame Center. Since therefore, it is impoſſible for them to be both true or both falſe at the ſame time, it unavoidably follows, that one is neceſſarily true, and the other neceſſarily falſe. This then being allowed, which is indeed ſelf-evident, if any two contradictory Propoſitions are aſſumed, and one of them can by a clear Train of Reaſoning be demonſtrated to be falſe, it neceſſarily follows that the other is true. For as the one is neceſſarily true, and the other neceſſarily falſe, when we come to diſcover which is the falſe Propoſition, we thereby alſo know the other to be true.

Ground of Reaſoning in indirect Demonſtrations.

IX. Now this is preciſely the Manner of an indirect Demonſtration, as is evident from the Account given of it above. For there we aſſume a Propoſition, which directly contradicts that we mean to demonſtrate, and having by a continued Series of Proofs ſhewn it to be falſe, thence infer that its Contradictory, or the Propoſition to be demonſtrated, is true. As therefore this laſt Concluſion is certain and unavoidable, let us next inquire, after what manner we come to be ſatisfied of the Falſhood of the aſſumed Propoſition, that ſo no poſſible Doubt may remain, as to the Force and Validity of Demonſtrations of this Kind. The manner then is plainly this. Beginning with the aſſumed Propoſition, we by the Help of Definins, ſelf evident Truths,

Indirect Demonſtrations a ſure Guide to Certainty.



or Propoſitions already eſtabliſhed, continue a Series of Reaſoning in the Way of a direct Demonſtration, until at length we arrive at ſome Abſurdity or known Falſhood. Thus *Euclid*, in the Example before-mentioned, from the Suppoſition that Circles touching one another inwardly have the ſame Center, deduces *that a Part is equal to the Whole*. Since therefore by a due and orderly Proceſs of Reaſoning, we come at laſt to a falſe Concluſion, it is manifeſt that all the Premiſſes cannot be true. For were all the Premiſſes true, the laſt Concluſion muſt be ſo too, by what has been before demonſtrated. Now as to all the other Premiſſes made uſe of in the Courſe of Reaſoning, they are manifeſt and known Truths by Suppoſition, as being either Definitions, ſelf-evident Propoſitions, or Truths previouſly eſtabliſhed. The aſſumed Propoſition is that only as to which any Doubt or Uncertainty remains. That alone therefore can be falſe, and indeed from what has been already ſhewn, muſt unavoidably be ſo. And thus we ſee, that in indirect Demonſtrations, two contradictory Propoſitions being laid down, one of which is demonſtrated to be falſe, the other, which is always the Propoſition to be proved, muſt neceſſarily be true; ſo that here, as well as in the direct Way of Proof, we arrive at a clear and ſatisfactory Knowledge of Truth.

A particular Caſe of indirect Demonſtrations.

X. THIS is univerſally the Method of Reaſoning, in all apogogical or indirect Demonſtrations; but there is one particular Caſe which has ſomething ſo ſingular and curious in it, that it well deſerves to be mentioned by itſelf; more eſpecially, as the Ground on which the Concluſion reſts, will require ſome farther Illuſtration. It is in ſhort this: that if any Propoſition is aſſumed, from which in a direct Train of Reaſoning we can deduce its Contradictory, the Propoſition ſo aſſumed is falſe, and the contradictory one true. For if we ſuppoſe the aſſumed Propoſition to be true, then, ſince all the other Premiſſes that enter the Demonſtration are alſo true, we ſhall have a Series of Reaſoning, conſiſting wholly of true Premiſſes; whence the laſt Concluſion or Contradictory of the aſſumed Propoſition muſt be true likewiſe. So that by this means, we ſhould have two contradictory Propoſitions both true at the ſame time, which is manifeſtly impoſſible. The aſſumed Propoſition therefore, whence this Abſurdity flows, muſt neceſſarily be falſe, and conſequently its Contradictory, which is here the Propoſition deduced from it, muſt be true. If then any Propoſition is propoſed to be demonſtrated, and we *aſſume* the *Contradictory* of that Pro-

Propoſition, and thence directly infer the Propoſition to be demonſtrated, by this very means we know, that the Propoſition ſo inferred is true. For ſince from an aſſumed Propoſition we have deduced its Contradictory, we are thereby certain that the aſſumed Propoſition is falſe; and if ſo, then its Contradictory, or that deduced from it, which in this Caſe is the ſame with the Propoſition to be demonſtrated, muſt be true.

A due Knowledge of the Principles of Logick indiſpenſibly neceſſary to make us proper Judges of Demonſtration.

XI. THAT this is not a mere empty Speculation, void of all Uſe and Application in Practice, is evident from the Conduct of the Mathematicians, who have adopted this Manner of Reaſoning, and given it a Place among their Demonſtrations. We have a curious Inſtance of it, in the twelfth Propoſition of the ninth Book of the *Elements*. *Euclid* there propoſes to demonſtrate, *that in any Series of Numbers, riſing from Unity in Geometrical Progreſſion, all the prime Numbers that meaſure the laſt Term in the Series, will alſo meaſure the next after Unity.* In order to this he aſſumes the Contradictory of the Propoſition to be demonſtrated; namely, *that ſome prime Number meaſuring the laſt Term in the Series, does not meaſure the next after Unity:* and thence by a continued Train of Reaſoning proves, that it actually does meaſure it. Hereupon he concludes the aſſumed Propoſition to be falſe, and that which is deduced from it, or its Contradictory, which is the very Propoſition he propoſed to demonſtrate, to be true. Now that this is a juſt and concluſive Way of Reaſoning, is abundantly manifeſt, from what we have ſo clearly eſtabliſhed above. I would only here obſerve, how neceſſary ſome Knowledge of the Rules of Logick is, to enable us to judge of the Force, Juſtneſs, and Validity of Demonſtrations; ſince ſuch may ſometimes occur, where the Truth of the Propoſition demonſtrated, will neither be owned nor perceived, unleſs we know before-hand by means of Logick, that a Concluſion ſo deduced, is neceſſarily true and valid. For tho' it is readily allowed, that by the mere Strength of our natural Faculties, we can at once diſcern, that of two contradictory Propoſitions, the one is neceſſarily true, and the other neceſſarily falſe: yet when they are ſo linked together in a Demonſtration, as that the one ſerves as a previous Propoſition, whence the other is deduced; it does not ſo immediately appear, without ſome Knowledge of the Principles of Logick, why that alone which is collected by Reaſoning, ought to be embraced as true, and the other whence it is collected, to be rejected as falſe.

XII. HAVING

And of itſelf ſufficient to guard us againſt Error and falſe Reaſoning.

XII. HAVING thus, I hope, ſufficiently evinced the Certainty of Demonſtration in all its Branches, and ſhewn the Rules by which we ought to proceed, in order to arrive at a juſt Concluſion, according to the various Ways of arguing made uſe of; I hold it needleſs to enter upon a particular Conſideration of thoſe ſeveral Species of falſe Reaſoning, which Logicians diſtinguiſh by the Name of *Sophiſms*. He that thoroughly underſtands the Form and Structure of a good Argument, will of himſelf readily diſcern every Deviation from it. And altho' *Sophiſms* have been divided into many Claſſes, which are all called by ſounding Names, that therefore carry in them much Appearance of Learning; yet are the Errors themſelves ſo very palpable and obvious, that I ſhould think it loſt Labour to write for a Man capable of being miſled by them. Here therefore we chuſe to conclude this Part of Logick, and ſhall in the next Book give ſome Account of *Method*, which tho' inſeparable from Reaſoning, is nevertheleſs always conſidered by Logicians, as a diſtinct Operation of the Mind; becauſe its Influence is not confined to the mere Exerciſe of the reaſoning Faculty, but extends in ſome Degree to all the Tranſactions of the Underſtanding.

THE

THE ELEMENTS OF LOGICK.

BOOK IV.

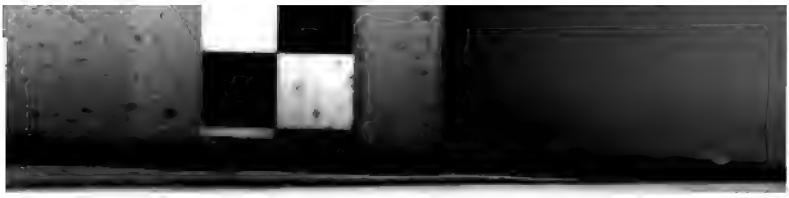
Of METHOD.

CHAP. I.

Of Method in general, and the Diviſion of it into Analytic and Synthetic.

The Underſtanding ſometimes employed in putting together known Truths.

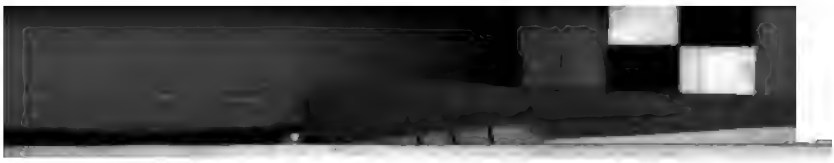
I. WE have now done with the three firſt Operations of the Mind, whoſe Office it is to ſearch after Truth, and enlarge the Bounds of human Knowledge. There is yet a fourth, which regards the Diſpoſal and Arrangement of our Thoughts, when we endeavour ſo to put them together, as that their mutual Connection and Dependence may be clearly ſeen. This is what Logicians call *Method*, and place always the laſt in Order in explaining the Powers of the Underſtanding; becauſe it neceſſarily ſuppoſes a previous Exerciſe of our other Faculties, and ſome Progreſs made in Knowledge, before we can exert it in any extenſive Degree. It often happens in the Purſuit



of Truth, that unexpected Diſcoveries preſent themſelves to the Mind, and thoſe too relating to Subjects, very remote from that about which we are at preſent employed. Even the Subjects themſelves of our Enquiry, are not always choſen with a due Regard to Order, and their Dependence one upon another. Chance, our particular Way of Life, or ſome preſent and preſſing Views, often prompt us to a Variety of Reſearches, that have but little Connection in the Nature of Things. When therefore a Man accuſtomed to much thinking, comes after any conſiderable Interval of Time, to take a Survey of his intellectual Acquiſitions, he ſeldom finds Reaſon to be ſatisfied with that Order and Diſpoſition, according to which they made their Entrance into his Underſtanding. They are there diſperſed and ſcattered, without Subordination, or any juſt and regular Coherence; inſomuch that the Subſerviency of one Truth to the Diſcovery of another, does not ſo readily appear to the Mind. Hence he is convinced of the Neceſſity of diſtributing them into various Claſſes, and combining into an uniform Syſtem, whatever relates to one and the ſame Subject. Now this is the true and proper Buſineſs of *Method*; to aſcertain the various Diviſions of human Knowledge, and ſo to adjuſt and connect the Parts in every Branch, that they may ſeem to grow one out of another, and form a regular Body of Science, riſing from firſt Principles, and proceeding by an orderly Concatenation of Truths.

Sometimes in the Search and Diſcovery of Truth we are unknown.

II. In this View of Things it is plain, that we muſt be before-hand well acquainted with the Truths we are to combine together; otherwiſe how could we diſcern their ſeveral Connections and Relations, or ſo diſpoſe of them as their mutual Dependence may require. But now it often happens, that the Underſtanding is employed, not in the Arrangement and Compoſition of known Truths, but in the Search and Diſcovery of ſuch as are unknown. And here the Manner of proceeding is very different, inaſmuch as we aſſemble at once our whole Stock of Knowledge relating to any Subject, and after a general Survey of Things, begin with examining them ſeparately and by Parts. Hence it comes to paſs, that whereas at our firſt ſetting out, we were acquainted only with ſome of the grand Strokes and Out-lines, if I may ſo ſay of Truth, by thus purſuing her through her ſeveral Windings and Receſſes, we gradually diſcover thoſe more inward and finer Touches, whence ſhe derives all her Strength, Symmetry, and Beauty. And here it is, that when



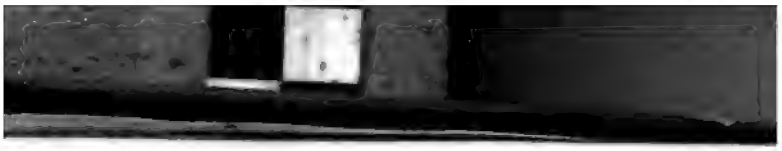
when by a narrow Scrutiny into Things, we have unravelled any Part of Knowledge, and traced it to its firſt and original Principles, inſomuch that the whole Frame and Contexture of it lies open to the View of the Mind; here I ſay it is, that taking it the contrary Way, and beginning with theſe Principles, we can ſo adjuſt and put together the Parts, as the Order and Method of Science requires.

Illuſtrated by the Similitude of a Watch.

III. BUT as theſe Things are beſt underſtood when illuſtrated by Examples, eſpecially if they are obvious, and taken from common Life; let us ſuppoſe any Machine, for inſtance a Watch, preſented to us, whoſe Structure and Compoſition we are as yet unacquainted with, but want if poſſible to diſcover. The Manner of proceeding in this Caſe is, by taking the Whole to Pieces, and examining the Parts ſeparately one after another. When by ſuch a Scrutiny we have thoroughly informed ourſelves of the Frame and Contexture of each, we then compare them together, in order to judge of their mutual Action and Influence. By this means we gradually trace out the inward Make and Compoſition of the Whole, and come at length to diſcern, how Parts of ſuch a Form, and ſo put together as we found, in unravelling and taking them aſunder, conſtitute that particular Machine called a Watch, and contribute to all the ſeveral Motions and Phænomena obſervable in it. This Diſcovery being made, we can take Things the contrary Way, and beginning with the Parts, ſo diſpoſe and connect them, as their ſeveral Uſes and Structures require, until at length we arrive at the Whole itſelf, from the unravelling of which theſe Parts reſulted.

Ground of the Analytic and Synthetic Methods.

IV. AND as it is in tracing and examining the Works of Art, ſo is it in a great meaſure in unfolding any Part of human Knowledge. For the Relations and mutual Habitudes of Things do not always immediately appear, upon comparing them one with another. Hence we have recourſe to intermediate Ideas, and by means of them are furniſhed with thoſe previous Propoſitions, that lead to the Concluſion we are in queſt of. And if it ſo happen, that the previous Propoſitions themſelves are not ſufficiently evident, we endeavour by new middle Terms, to aſcertain their Truth, ſtill tracing Things backward in a continual Series, until at length we arrive at ſome Syllogiſm, where the Premiſſes are firſt and ſelf-evident Principles. This done, we become perfectly ſatisfied as to the Truth of all the Concluſions we have paſſed through, inaſmuch as they are now ſeen to ſtand



upon the firm and immoveable Foundation of our intuitive Perceptions And as we arrived at this Certainty, by tracing Things backward to the original Principles whence they flow, ſo may we at any time renew it by a direct contrary Proceſs, if beginning with theſe Principles, we carry the Train of our Thoughts forward, until they lead us by a connected Chain of Proofs to the very laſt Concluſion of the Series.

Diviſion of Method into Analytic and Synthetic.

V. HENCE it appears, that in diſpoſing and putting together our Thoughts, either for our own Uſe, that the Diſcoveries we have made may at all times lie open to the Review of the Mind; or where we mean to communicate and unfold the Diſcoveries to others, there are two Ways of proceeding equally within our Choice. For we may ſo propoſe the Truths relating to any Part of Knowledge, as they preſented themſelves to the Mind in the Manner of Inveſtigation, carrying on the Series of Proofs in a reverſe Order, until they at laſt terminate in firſt Principles: or beginning with theſe Principles, we may take the contrary Way, and from them deduce by a direct Train of Reaſoning, all the ſeveral Propoſitions we want to eſtabliſh. This Diverſity in the Manner of arranging our Thoughts, gives riſe to the twofold Diviſion of Method eſtabliſhed among Logicians. For Method, according to their Uſe of the Word, is nothing elſe but the Order and Diſpoſition of our Thoughts relating to any Subject. When Truths are ſo propoſed and put together, as they were or might have been diſcovered, this is called the *Analytic Method*, or the *Method of Reſolution*; inaſmuch as it traces Things backward to their Source, and *reſolves* Knowledge into its firſt and original Principles. When on the other hand they are deduced from theſe Principles, and connected according to their mutual Dependence, inſomuch that the Truths firſt in Order, tend always to the Demonſtration of thoſe that follow, this conſtitutes what we call the *Synthetic Method*, or *Method of Compoſition*. For here we proceed by gathering together the ſeveral ſcattered Parts of Knowledge, and *compiling* them into one Whole or Syſtem, in ſuch manner, that the Underſtanding is enabled diſtinctly to follow Truth, through all her different Stages and Gradations.

Called alſo the Method of Invention, and the Method of Science.

VI. THERE is this farther to be taken notice of, in relation to theſe two Species of Method; that the firſt has alſo obtained the Name of the *Method of Invention*, becauſe it obſerves the Order in which our Thoughts ſucceed one another

another in the *Invention* or Diſcovery of Truth. The other again is often denominated the *Method of Doctrine* or *Inſtruction*, inaſmuch as in laying our Thoughts before others, we generally chuſe to proceed in the *Synthetic* Manner, deducing them from their firſt Principles. For we are to obſerve, that altho' there is great Pleaſure in purſuing Truth in the Method of Inveſtigation, becauſe it places us in the Condition of the Inventor, and ſhews the particular Train and Proceſs of Thinking, by which he arrived at his Diſcoveries; yet is it not ſo well accommodated to the Purpoſes of Evidence and Conviction. For at our firſt ſetting out, we are commonly unable to divine, where the Analyſis will lead us; inſomuch that our Reſearches are for ſome time, little better than a mere groping in the Dark. And even after Light begins to break in upon us, we are ſtill obliged to many Reviews, and a frequent Compariſon of the ſeveral Steps of the Inveſtigation among themſelves. Nay, when we have unravelled the whole, and reached the very Foundation on which our Diſcoveries ſtand, all our Certainty in regard to their Truth, will be found in a great meaſure to ariſe from that Connection we are now able to diſcern between them and firſt Principles, taken in the Order of Compoſition. But in the Synthetic Manner of diſpoſing our Thoughts, the Caſe is quite different. For as we here begin with intuitive Truths, and advance by regular Deductions from them, every Step of the Procedure brings Evidence and Conviction along with it; ſo that in our Progreſs from one Part of Knowledge to another, we have always a clear Perception of the Ground on which our Aſſent reſts. In communicating therefore our Diſcoveries to others, this Method is apparently to be choſen, as it wonderfully improves and enlightens the Underſtanding, and leads to an immediate Perception of Truth. And hence it is, that in the following Pages we chuſe to diſtinguiſh it by the Name of the *Method of Science*; not only as in the Uſe of it we arrive at *Science* and Certainty, but becauſe it is in fact the Method, in which all thoſe Parts of human Knowledge, that properly bear the Name of *Sciences*, are and ought to be delivered. But we now proceed to explain theſe two kinds of Method more particularly.

CHAP. II.

Of the Method of Invention.

Origin of the ſeveral Arts and Inventions of human Life.

I. BY the *Method of Invention* we underſtand ſuch a Diſpoſition and Arrangement of our Thoughts, as follows the natural Procedure of the Underſtanding, and preſents them in the Order in which they ſucceed one another in the Inveſtigation and Diſcovery of Truth. Now it is plain, that to handle a Subject ſucceſsfully according to this Method, we have no more to do, than obſerve the ſeveral Steps and Advances of our own Minds, and fairly copy them out to the View of others. And indeed it will be found to hold in general, with regard to all the active Parts of human Life, eſpecially when reduced to that which is in the Schools termed an Art; that the Rules by which we conduct ourſelves, are no other than a Series of Obſervations, drawn from the Attention of the Mind to what paſſes, while we exerciſe our Faculties in that particular Way. For when we ſet about any Invention or Diſcovery, we are always puſhed on by ſome inward Principle, Diſpoſition, or Aptitude ſhall I call it, which we experience in ourſelves, and which makes us believe, that the Thing we are in queſt of is not altogether beyond our reach. We therefore begin with eſſaying our Strength, and are ſometimes ſucceſsful, tho' perhaps more frequently not. But as the Mind when earneſtly bent upon any Purſuit, is not eaſily diſcouraged by a few Diſappointments, we are only ſet upon renewing our Endeavours, and by an obſtinate Perſeverance, and repeated Trials, often arrive at the Diſcovery of what we have in view. Now it is natural for a Man of a curious and inquiſitive Turn, after having maſtered any Part of Knowledge with great Labour and Difficulty, to ſet himſelf to examine how he happened to miſcarry in his firſt Attempts, and by what particular Method of Procedure he at length came to be ſucceſsful. By this means we diſcover on the one hand, thoſe Rocks and Shelves which ſtand moſt in our way, and are apt to diſturb and check our Progreſs; and on the other, that more ſure and certain Courſe, which if we continue in ſteadily, will bring us to the Attainment of what we are in purſuit of. Hence ſpring all the Arts and Inventions of human Life, which, as we have already ſaid, are founded upon a Series of Rules and Obſervations, point-

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ing out the true and genuine Manner of arriving at any Attainment. When the Mind reſts ſatisfied in a bare Contemplation of the Rules, and the Reaſons on which they are founded, this Kind of Knowledge is called Speculative. But if we proceed farther, and endeavour to apply theſe Rules to Practice, ſo as to acquire a Habit of exerting them on all proper Occaſions, we are then ſaid to be poſſeſſed of the Art itſelf.

Why in treating of the Method of Invention, we muſt give ſome Account of the Art itſelf.

II. FROM what has been ſaid it appears, that in order diſtinctly to explain the Method of Invention, we muſt take a View of the Underſtanding as employed in the Search and Inveſtigation of Truth. For by duely attending to its Procedure and Advances, we ſhall not only diſcover the Rules by which it conducts itſelf, but be enabled alſo to trace out the ſeveral Helps and Contrivances it makes uſe of, for the more ſpeedy and effectual Attainment of its Ends. And when theſe Particulars are once known, it will not be difficult for us, in laying open our Diſcoveries to others, to combine our Thoughts agreeably to the Method here required. Becauſe having fixed and aſcertained the Rules of it, and being perfectly acquainted with the Conduct and Manner of the Mind, we need only take a Review of the ſeveral Truths as they ſucceed one another in the Series of Inveſtigation, ſet them in order before us, and fairly tranſcribe the Appearance they make to the Underſtanding. Hence it is that Logicians, in treating of the Method of Invention, have not merely confined themſelves to the laying down of Directions for the Diſpoſal and Arrangement of our Thoughts; but have rather explained the Art itſelf, and eſtabliſhed thoſe Rules by which the Mind ought to proceed in the Exerciſe of its inventive Powers. For they rightly judged, that if theſe were once thoroughly underſtood, the other could no longer remain unknown. By this means it happens, that the *Method of Invention*, is become another Expreſſion for the *Art of Invention*, and very often denotes the Conduct and Procedure of the Underſtanding in the Search of Truth. And as ſome Knowledge of the Principles of the Art, is in a manner abſolutely neceſſary, towards a due Conception of the Rules by which we ought to govern and diſpoſe our Thoughts in treating Subjects after this Method; we ſhall therefore follow the Example of other Logicians, and endeavour to give ſome ſhort Account of the Buſineſs of Invention, and of thoſe ſeveral Helps and Contrivances by which the Mind is enabled to facilitate and enlarge its Diſcoveries.

Attention and a comprehenſive Underſtanding the preparatory Qualifications to Invention.

III. IT has been already obſerved, that when the Mind employs itſelf in the Search of unknown Truths, it begins with aſſembling at once its whole Stock of Knowledge relating to the Subject, and after a general Survey of Things, ſets about examining them ſeparately and by Parts. Now as in this ſeparate Examination, the Number of Parts continually increaſe upon us; and as it is farther neceſſary, that we ſurvey them on all Sides, compare them one with another, and accurately trace their mutual Habitudes and Reſpects; it is from hence apparent, that in the Exerciſe of Invention, two things are of principal Conſideration. Firſt, an enlarged and comprehenſive Underſtanding, able to take in the great Multitude of Particulars that frequently come under our Notice. Secondly, a ſtrong Habit of Attention, that lets nothing remarkable ſlip its View, and diſtinguiſhes carefully all thoſe Circumſtances which tend to the illuſtrating and clearing the Subject we are upon. Theſe are the great and preparatory Qualifications, without which it were in vain to hope, that any conſiderable Advance could be made, in enlarging the Bounds of human Knowledge. Nor ought we to eſteem it a ſmall Advantage, that they are in ſome meaſure in our own Power, and may by a proper Cultivation, be improved and ſtrengthened to a Degree almoſt beyond Belief. We find by Experience, that the Study of Mathematics in particular is greatly ſerviceable to this End. Habits we all know grow ſtronger by Exerciſe, and as in this Science there is a perpetual Call upon our Attention, it by degrees becomes natural to us, ſo as that we can preſerve it ſteady and uniform, thro' long and intricate Calculations, and that with little or no Fatigue to the Underſtanding. But a yet more wonderful Advantage ariſing from the Culture of the Mathematics is this, that hereby we in ſome meaſure extend the Dimenſions of the human Mind, enlarge its Compaſs of Perception, and accuſtom it to wide and comprehenſive Views of Things. For whereas at our firſt ſetting out, we often find it extremely difficult to maſter a ſhort and eaſy Demonſtration, and trace the Connection of its ſeveral Parts; yet as we advance in the Science, the Underſtanding is ſeen gradually to dilate, and ſtretch itſelf to a greater Size; inſomuch that a long and intricate Series of Reaſoning, is often taken in with ſcarce any Labour of Thought; and not only ſo, but we can in ſome Caſes with a ſingle Glance of our Minds, run thro'

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an entire Syſtem of Truths, and extend our View at once to all the ſeveral Links that unite and hold them together.

A judicious Choice of intermediate Ideas, another great Requiſite in this Art.

IV. WHEN we are furniſhed with theſe two preparatory Qualifications, the next Requiſite to the Diſcovery of Truth is, a judicious Choice of intermediate Ideas. We have ſeen in the third Part of this Treatiſe, that many of our Ideas are of ſuch a Nature, as not to diſcover their ſeveral Habitudes and Relations, by any immediate Compariſon one with another. In this Caſe we muſt have recourſe to intermediate Ideas; and the great Art lies, in finding out ſuch as have an obvious and perceivable Connection with the Ideas, whoſe Relations we enquire after. For thus it is that we are furniſhed with known and evident Truths, to ſerve as Premiſſes for the Diſcovery of ſuch as are unknown. And indeed the whole Buſineſs of Invention ſeems in a great meaſure to lie, in the due Aſſemblage and Diſpoſition of theſe preliminary Truths. For they not only lead us Step by Step to the Diſcovery we are in queſt of, but are ſo abſolutely neceſſary in the Caſe, that without them it were in vain to attempt it; nothing being more certain, than that unknown Propoſitions can no otherwiſe be traced, but by means of ſome Connection they have with ſuch as are known. Nay Reaſon itſelf, which is indeed the Art of Knowledge, and the Faculty by which we puſh on our Diſcoveries; yet by the very Definition of it implies no more, than an Ability of deducing unknown Truths, from Principles or Propoſitions that are already known. Now although this happy Choice of intermediate Ideas, ſo as to furniſh a due Train of previous Propoſitions, that ſhall lead us ſucceſſively from one Diſcovery to another, depends in ſome meaſure upon a natural Sagacity and Quickneſs of Mind; it is yet certain from Experience, that even here much may be effected, by a ſtubborn Application and Induſtry. In order to this it is in the firſt place neceſſary, that we have an extenſive Knowledge of Things, and ſome general Acquaintance with the whole Circle of Arts and Sciences. Wide and extended Views add great Force and Penetration to the Mind, and enlarge its Capacity of judging. And if to this we join in the ſecond place, a more particular and intimate Study of whatever relates to the Subject about which our Enquiries are employed, we ſeem to bid fair for Succeſs in our Attempts. For thus we are provided with an ample Variety, out of which to chuſe our intermediate Ideas, and are therefore more likely to diſcover ſome among them, that will furniſh out the pre-

vious Propoſitions neceſſary in any Train of Reaſoning.

Sagacity and a Quickneſs of Underſtanding greatly promoted by the Study of Algebra.

V. IT is not indeed to be denied, that when we have even got all our Materials about us, much ſtill depends upon a certain Dexterity and Addreſs, in ſingling out the moſt proper, and applying them ſkilfully for the Diſcovery of Truth. This is that Talent which is known by the Name of Sagacity, and commonly ſuppoſed to be altogether the Gift of Nature. But yet I think it is beyond Diſpute, that Practice, Experience, and a watchful Attention to the Procedure of our own Minds while employed in the Exerciſe of Reaſoning, are even here of very great Avail. It is a Truth well known to thoſe who have made any conſiderable Progreſs in the Study of Algebra, that an Addreſs and Skill in managing intricate Queſtions, may be very often obtained, by a careful Imitation of the beſt Models. For although when we firſt ſet about the Solution of Equations, we are puzzled at every Step, and think we can never enough admire the Sagacity of thoſe who preſent us with elegant Models in that Way; yet by degrees we ourſelves arrive at a great Maſtery, not only in deviſing proper Equations, and coupling them artfully together, ſo as from the more complicated to derive others that are ſimple; but alſo in contriving uſeful Subſtitutions, to free our Calculations from Fractions, and thoſe Intricacies that ariſe from Surds and irrational Quantities. Nor is it a ſmall Pleaſure attending the Proſecution of this Study, that we thus diſcern the growing Strength of our own Minds, and ſee ourſelves approaching nearer and nearer to that Sagacity and Quickneſs of Underſtanding, which we ſo much admired in others, and were at firſt apt to conclude altogether beyond our Reach.

Where Art and Management are required in the Purſuit of Invention.

VI. WE have now conſidered thoſe Requiſites to Invention, that have their Foundation in the natural Talents of the Mind: An enlarged and comprehenſive Underſtanding, a ſtrong Habit of Attention, a Quickneſs and Sagacity in diſcerning and applying intermediate Ideas. Let us next take a View of ſuch other Helps, as more immediately depend upon Art and Management, and ſhew the Addreſs of the Mind, in contriving Means to facilitate its Diſcoveries, and free it from all unneceſſary Fatigue and Labour. For we are to obſerve, that though the Capacity of the Intellect may be greatly enlarged by Uſe and Exerciſe, yet ſtill our Views are confined within certain Bounds, beyond which a finite Under-

Underſtanding cannot reach. And as it often happens in the Inveſtigation of Truth, eſpecially where it lies at a conſiderable Diſtance from firſt Principles, that the Number of Connections and Relations are ſo great, as not to be taken in at once by the moſt improved Underſtanding; it is therefore one great Branch of the Art of Invention, to take account of theſe Relations as they come into View, and diſpoſe of them in ſuch manner, that they may always lie open to the Inſpection of the Mind, when diſpoſed to turn its Attention that Way. By this Means, without perplexing ourſelves with too many Conſiderations at once, we have yet theſe Relations at Command, when neceſſary to be taken notice of in the Proſecution of our Diſcoveries: and the Underſtanding thus free and diſengaged, can bend its Powers more intenſely, towards that particular Part of the Inveſtigation it is at preſent concerned with. Now in this, according to my Apprehenſion, lies the great Art of human Knowledge; to manage with Skill the Capacity of the Intellect, and contrive ſuch Helps, as may bring the moſt wide and extended Objects within the Compaſs of its natural Powers. When therefore the Multitude of Relations increaſe very faſt upon us, and grow too unwieldy to be dealt with in the Lump; we muſt combine them in different Claſſes, and ſo diſpoſe of the ſeveral Parts, as that they may at all times lie open to the leiſurely Survey of the Mind. By this means we avoid Perplexity and Confuſion, and are enabled to conduct our Reſearches, without being puzzled with that infinite Crowd of Particulars, that frequently fall under our Notice in long and difficult Inveſtigations. For by carrying our Attention ſucceſſively from one Part to another, we can upon occaſion take in the Whole; and knowing alſo the Order and Diſpoſition of the Parts, may have recourſe to any of them at Pleaſure, when its Aid becomes neceſſary in the Courſe of our Enquiries.

An orderly Diſpoſition of great Uſe in adapting Objects to the Capacity of the Underſtanding.

VII. FIRST then I ſay, than an orderly Combination of Things, and claſſing them together with Art and Addreſs, brings great and otherwiſe unmanageable Objects, upon a level with the Powers of the Mind. We have ſeen in the firſt Part of this Treatiſe, how by taking Numbers in a progreſſive Series, and according to an uniform Law of Compoſition, the moſt bulky and formidable Collections are comprehended with Eaſe, and leave diſtinct Impreſſions in the Underſtanding. For the ſeveral Stages of the Progreſſion, ſerve as ſo many Steps to the Mind, by which it aſcends gradually to the higheſt Combinations; and

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as it can carry its Views from one to another with great Eaſe and Expedition, it is thence enabled to run over all the Parts ſeparately, and thereby riſe to a juſt Conception of the Whole. The ſame thing happens in all our other complex Notions, eſpecially when they grow very large and complicated; for then it is that we become ſenſible of the Neceſſity of eſtabliſhing a certain Order and Gradation in the Manner of combining the Parts. This has been already explained at ſome Length in the Chapter of the Compoſition and Reſolution of our Ideas, where we have traced the gradual Progreſs of the Mind through all the different Orders of Perception, and ſhewn, that the moſt expeditious Way of arriving at a juſt Knowledge of the more compounded Notices of the Underſtanding, is by advancing regularly through all the intermediate Steps. Hence it is eaſy to perceive, what Advantages muſt ariſe from a like Conduct, in regard to thoſe ſeveral Relations and Connections, upon which the Inveſtigation of Truth depends. For as by this means we are enabled to bring them all within the Reach of the Mind, they can each in their Turns be made uſe of upon occaſion, and furniſh their Aſſiſtance towards the Diſcovery of what we are in queſt of. Now this is of principal Conſideration in the Buſineſs of Invention, to have our Thoughts ſo much under Command, that in comparing Things together, in order to diſcover the Reſult of their mutual Connections and Dependence, all the ſeveral Lights that tend to the clearing the Subject we are upon, may lie diſtinctly open to the Underſtanding, ſo as nothing material ſhall eſcape its View: becauſe an Overſight of this Kind in ſumming up the Account, muſt not only greatly retard its Advances, but in many Caſes check its Progreſs altogether.

And in enabling us to proceed gradually and with Eaſe in the Inveſtigation of Truth.

VIII. BUT ſecondly, another Advantage ariſing from this orderly Diſpoſition is, that hereby we free the Mind from all unneceſſary Fatigue, and leave it to fix its Attention upon any Part ſeparately, without perplexing itſelf with the Conſideration of the Whole. Unknown Truths, as we have already obſerved, are only to be traced, by means of the Relation between them and others that are known. When therefore theſe Relations become very numerous, it muſt needs greatly diſtract the Mind, were it to have its Attention continually upon the Stretch, after ſuch a Multitude of Particulars at once. But now, by the Method of claſſing and ordering our Perceptions above explained, this Inconvenience is wholly prevented. For a juſt

Diſtri-

Diſtribution of Things, as it aſcertains diſtinctly the Place of each, enables us to call any of them into view at pleaſure, when the preſent Conſideration of it becomes neceſſary. Hence the Mind, proceeding gradually through the ſeveral Relations of its Ideas, and marking the Reſults of them at every Step, can always proportion its Enquiries to its Strength; and confining itſelf to ſuch a Number of Objects, as it can take in and manage at eaſe, ſees more diſtinctly all the Conſequences that ariſe from comparing them one with another. When therefore it comes afterwards to take a Review of theſe its ſeveral Advances, as by this means the Amount of every Step of the Inveſtigation is fairly laid open to its Inſpection, by adjuſting and putting theſe together in due Order and Method, it is enabled at laſt to diſcern the Reſult of the Whole. And thus, as before in the Compoſition of our Ideas, ſo likewiſe here in the Search and Diſcovery of Truth, we are fain to proceed gradually, and by a Series of ſucceſſive Stages. For theſe are ſo many Reſting-Places to the Mind, whence to look about it, ſurvey the Concluſions it has already gained, and ſee what Helps they afford, towards the obtaining of others which it muſt ſtill paſs through, before it reaches the End of the Inveſtigation. Hence it often happens, that very remote and diſtant Truths, which lie far beyond the Reach of any ſingle Effort of the Mind, are yet by this progreſſive Method ſucceſsfully brought to Light, and that too with leſs Fatigue to the Underſtanding, than could at firſt have well been imagined. For although the whole Proceſs taken together, is frequently much too large to come within the View of the Mind at once; and therefore conſidered in that Light, may be ſaid truly to exceed its Graſp: yet the ſeveral Steps of the Inveſtigation by themſelves, are often eaſy and manageable enough; ſo that by proceeding gradually from one to another, and thoroughly maſtering the Parts as we advance, we carry on our Reſearches with wonderous Diſpatch, and are at length conducted to that very Truth, with a View to the Diſcovery of which, the Inquiſition itſelf was ſet on foot.

Algebra and Arithmetic, properly ſpeaking, both Arts of Invention.

IX. BUT now perhaps it may not be improper, if we endeavour to illuſtrate theſe Obſervations by an Example, and ſet ourſelves to trace the Conduct and Manner of the Mind, when employed in the Exerciſe of Invention. There are two great Branches of the Mathematics, peculiarly fitted to furniſh us with Models in this Way: *Arithmetic* I mean, and *Algebra*. Algebra is univerſally

ſally known to be the very Art and Principle of Invention; and in Arithmetic too, we are frequently put upon the finding out of unknown Numbers, by means of their Relations and Connections with others that are known; as where it is required to find a Number, equal to the Sum of two others, or the Product of two others. I chuſe to borrow my Examples chiefly from the laſt Science, both becauſe they will be more within the Reach of thoſe, for whom this Treatiſe is principally deſigned; as likewiſe, becauſe Arithmetic furniſhes the beſt Models of a happy Sagacity and Management, in claſſing and regulating our Perceptions. So that here more than in any other Branch of human Knowledge, we ſhall have an Opportunity of obſerving, how much an orderly Diſpoſition of Things, tends to the Eaſe and Succeſs of our Enquiries, by leaving us to canvaſs the Parts ſeparately, and thereby riſe to a gradual Conception of the Whole, without entangling ourſelves with too many Conſiderations at once, in any ſingle Step of the Inveſtigation. For it will indeed be found, that a Dexterity and Addreſs in the Uſe of this laſt Advantage, ſerves to facilitate and promote our Diſcoveries, almoſt beyond Imagination or Belief.

The Method of Claſſing our Perceptions in Arithmetic.

X. WE have already explained the Manner of reducing Numbers into Claſſes, and of diſtinguiſhing theſe Claſſes by their ſeveral Names. And now we are farther to obſerve, that the preſent Method of Notation is ſo contrived, as exactly to fall in with the Form of numbering. For as in the Names of Numbers, we riſe from *Units* to *Tens*, from *Tens* to *Hundreds*, from *Hundreds* to *Thouſands*, &c. ſo likewiſe in their Notation, the ſame Figures, in different Places, ſignify theſe ſeveral Combinations. Thus 2 in the firſt Place on the right Hand denotes two *Units*, in the ſecond Place it expreſſes ſo many *Tens*, in the third *Hundreds*, in the fourth *Thouſands*. By this means it happens, that when a Number is written down in Figures, as every Figure in it expreſſes ſome diſtinct Combination, and all theſe Combinations together make up the total Sum; ſo may the ſeveral Figures be conſidered as the conſtituent Parts of the Number. Thus the Number 2436 is evidently by the very Notation diſtinguiſhed into four Parts, mark'd by the four Figures that ſerve to expreſs it. For the firſt denotes *two Thouſand*, the ſecond *four Hundred*, the third *Thirty* or *three Tens*, and the fourth *Six*. Theſe ſeveral Parts, though they here appear in a conjoined Form, may yet be alſo expreſſed ſeparately thus, 2000, 400, 30 and 6, and the Account is exactly the ſame.

XI. THIS

XI. THIS then being the Caſe, if it is required to find a Number, equal to the Sum of two others given; our Buſineſs is, to examine ſeparately theſe given Numbers; and if they appear too large and bulky to be dealt with by a ſingle Effort of Thought, then, ſince the very Notation diſtinguiſhes them into different Parts, we muſt content ourſelves with conſidering the Parts aſunder, and finding their Sums one after another. For ſince the Whole is equal to all its Parts, if we find the Sums of the ſeveral Parts of which any two Numbers conſiſt, we certainly find the total Sum of the two Numbers. And therefore, theſe different Sums, united and put together, according to the eſtabliſhed Rules of Notation, will be the very Number we are in queſt of. Let it be propoſed, for inſtance, to find a Number equal to the Sum of theſe two: 2436 and 4352. As the finding of this by a ſingle Effort of Thought, would be too violent an Exerciſe for the Mind; I conſider the Figures repreſenting theſe Numbers, as the Parts of which they conſiſt, and therefore ſet myſelf to diſcover their Sums one after another. Thus 2 the firſt Figure on the right Hand of the one, added to 6 the firſt Figure on the right Hand of the other, makes 8, which is therefore the Sum of theſe two Parts. Again, the Sum of 5 and 3, the two Figures or Parts in the ſecond Place, is likewiſe 8. But now as Figures in the ſecond Place, denote not ſimple *Units*, but *Tens*; hence it is plain, that 5 and 3 here, ſignify five *Tens* and three *Tens*, or 50 and 30, whoſe Sum therefore muſt be eight *Tens*, or 80. And here again I call to mind, that having already obtained one Figure of the Sum, if I place that now found immediately after it, it will thereby ſtand alſo in the ſecond Place, and ſo really expreſs, as it ought to do, eight *Tens*, or 80. And thus it is happily contrived, that though in the Addition of *Tens*, I conſider the Figures compoſing them as denoting only ſimple *Units*, which makes the Operation eaſier, and leſs perplexed; yet by the Place their Sum obtains in the Number found, it expreſſes the real Amount of the Parts added, taken in their full and compleat Values. The ſame thing happens in ſumming the *Hundreds* and *Thouſands*; that is, though the Figures expreſſing theſe Combinations, are added together as ſimple Units; yet their Sums ſtanding in the third and fourth Places of the Number found, thereby really denote Hundreds and Thouſands, and ſo repreſent the true Value of the Parts added.

The Helps thence derived towards an eaſy Addition of Numbers.

XII. HERE

Because in the several Steps by which it is carried on, the Mind is put to little or no Fatigue.

XII. HERE then we have a manifeſt Proof, of the great Advantages derived from an artful Method of claſſing our Perceptions. For as the Numbers themſelves are by this means diſtinguiſhed into different Parts, which brings them more readily within the Compaſs of the Underſtanding; ſo by taking theſe Parts ſeparately, the Operations about Numbers are rendered very eaſy and ſimple. And indeed it is particularly worthy our Notice, that tho' in adding two very large Numbers together, the whole Proceſs is of ſufficient Length; yet the ſeveral Steps by which it is conducted, are managed with incredible Diſpatch, and ſcarce any Fatigue to the Mind. This is apparent in the Example given above, where we ſee, that in every Advance from one Part to another, nothing more is required, than to add together the two Figures in the like Places of the Numbers to be ſummed. But what is yet more wonderful, tho' in the Progreſs of a long Operation, the Figures riſe in their Value as we advance, and grow to ſignify *Thouſands*, *Millions*, *Billions*, *&c.* yet ſo happily are they contrived for expreſſing the different Parts of Numbers, that in every Step of the Procedure, we conſider them as denoting only ſimple Units, all other Deficiencies being made up by the Places their Sums obtain in the total Amount. And thus it is ſo ordered in this admirable Form of Notation, that however large the Numbers are that come under Examination, they are nevertheleſs managed with the ſame Eaſe as the moſt ſimple and obvious Collections; becauſe in the ſeveral Operations about them, the Mind is neither tied down to the View of too many Parts at once, nor entangled with any Conſiderations regarding the Bulk and Compoſition of thoſe Parts.

This further illuſtrated by an Example in Multiplication.

XIII. AND if theſe Advantages are ſo very manifeſt in the firſt and ſimpleſt Rules of Arithmetic, much more do they diſcover themſelves in thoſe that are intricate and complex. Let a Man endeavour in his Thoughts, to find the Product of two Numbers, each conſiſting of twenty or thirty Places, and that without conſidering the Parts ſeparately; I believe he will ſoon be ſenſible, that it is a Diſcovery, far beyond the Limits of the human Mind. But now in the progreſſive Method above explained, nothing is more ſimple and eaſy. For if we take the firſt Figure on the left Hand of the one Number, and by it multiply every Figure of the other ſeparately; theſe ſeveral Products connected according to the eſtabliſhed Laws of Notation, muſt truly repreſent

preſent the total Product of this other, by that Part of the multiplying Number. Let us ſuppoſe, for inſtance, the Figure in the Unit's Place of the *Multiplier* to be 2, and the three laſt Places of the *Multiplicand* to be 432. Then, 2 multiplying 2 produces 4, which therefore is the firſt Part of the Product. Again, 2 multiplying 3 produces 6. But now 3 ſtanding in the ſecond Place of the Multiplicand, denotes in its real Value three *Tens*, or 30, which therefore taken twice, amounts to ſix *Tens*, or 60. And accordingly the Figure 6, coming after 4 already found, is thereby thrown into the ſecond Place of the Product, and ſo truly expreſſes 60, its full and adequate Value. The ſame thing happens in multiplying 4, which ſtanding in the Place of *Hundreds*, its Product by 2 is 800. But this very Sum the Figure 8, produced from 2 and 4, really denotes in the total Product. Becauſe coming after 64, the two Parts already found, it is thereby determined to the third Place, where it of courſe expreſſes ſo many *Hundreds*. This Proceſs, as is evident, may be continued to any Length we pleaſe; and it is remarkable, that in like manner as in Addition, tho' the Value of the Figures in the Multiplicand continually riſes upon us, yet we all along proceed with them as ſimple Units; becauſe the Places of the ſeveral Products in the total Amount, repreſent the juſt Reſult of multiplying the Figures together, according to their true and adequate Value.

Of the Diſpoſition of the ſeveral Products in order to Addition.

XIV. HAVING thus obtained the Product by the firſt Figure of the Multiplier, we next take that in the ſecond Place, and proceed with it in the ſame manner. This ſecond Operation gives us the Effect of that Figure, conſidered as a ſimple Digit. But as it ſtood in the ſecond Place, and therefore really denoted ſo many *Tens*, hence it is plain, that the Product now gained muſt be yet multiplied by *Ten*, in order to expreſs the true Product ſought. This is accordingly done in the Operation, by placing the firſt Figure of this ſecond Product, under the ſecond Figure of the firſt Product. For this when they come to be added together, has the ſame Effect as annexing a Cypher, or multiplying by *Ten*, as every one knows who is in the leaſt acquainted with the Rules of Arithmetic. In like manner, when we multiply by the Figure in the third Place, as this new Product is placed ſtill one Figure backwards, we do in Effect annex two Cyphers to it, or multiply it by a *Hundred*. And this we ought certainly to do; becauſe having conſidered the multiplying Figure as denoting only ſimple Units,

when it really expreſſed ſo many Hundreds, the firſt Operation gives no more than the hundredth Part of the true Product. The Caſe is the ſame in multiplying by the fourth or fifth Figures, becauſe the Products ſtill running backwards, we thereby in effect annex as many Cyphers to them, as brings them up ſeverally to their reſpective adequate Values. By this means it happens, that tho' the Figures of the Multiplier in every Advance, denote ſtill higher and higher Combinations, yet we all along proceed with them as ſimple Digits; the Diſpoſition of the ſeveral Products, in order to Addition, making up for all the Deficiencies that ariſe from this Way of conſidering them. When in this Method of Procedure, we have obtained the Product of the Multiplicand into all the different Parts of the Multiplier, by adding theſe Products together, we obtain alſo the total Product of the two Numbers. For ſince the Whole is equal to all its Parts, nothing is more evident, than that the Product of any one Number into another, muſt be equal to its Product into all the Parts of that other: and therefore the ſeveral partial Products united into one Sum, cannot but truly repreſent the real Product ſought.

Arithmetical Operations by being carried on in a progreſſive Method, rendered eaſy and intelligible.

XV. THUS we ſee, that in Queſtions of Multiplication, tho' the whole Proceſs is ſometimes ſufficiently long and tedious, yet the ſeveral Steps by which it is carried on, are all very level to the Powers of the Underſtanding. For from the Account given above it appears, that nothing more is required in any of them, than barely to multiply one Digit by another. But now this eaſy Rule of Operation, is wholly derived from the beforementioned Addreſs in claſſing our Perceptions. For to this it is owing, that the Numbers under Conſideration are diſtinguiſhed into Parts, and that the ſeveral Parts are alſo clearly repreſented to the Mind, in the very Form of Notation. Now as theſe Parts have an invariable Relation one to another, and advance in their Value by an uniform Law of Progreſſion; the Underſtanding, by means of ſuch a Link, can eaſily hold them together, and carry its Views from Stage to Stage without Perplexity or Confuſion. Hence it happens, that however large and mighty the Numbers are, ſo as far to exceed the immediate Graſp of the Mind; yet by running gradually thro' the ſeveral Combinations of which they are made up, we at length comprehend them in their full Extent. And becauſe it would be impoſſible for the Underſtanding, to multiply very large Numbers one into

to

er, by a ſingle Effort of Thought; therefore here alſo
lers the Parts ſeparately, and taking them in an
Series, advances by a Variety of ſucceſſive Steps.
e indeed in the Progreſs of the Operation the ſeveral
rſe in their Value: but this Conſideration enters
Work itſelf. For there, as we have already ſeen, tho'
ers are taken as denoting only ſimple Units, yet
r and Diſpoſition of the partial Products, exhibits
ording to its real Amount. Hence in every Step,
only to multiply one Digit by another, which as it
led with ſcarce any Difficulty, the whole Proceſs is
n with wondrous Diſpatch. And thus by a Series
Operations, we at length riſe to Diſcoveries, which
other Method of Procedure, would have been found
r beyond the Reach of the Mind.

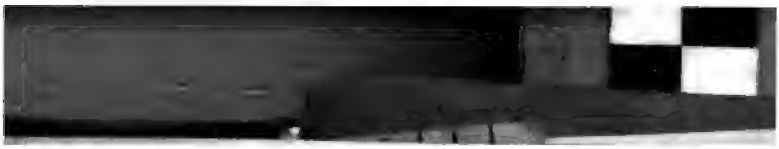
The Art of claſſing our Perceptions, the great Mean and Inſtrument of Invention.

SINCE therefore by a due and orderly
on of our Ideas, we can bring the moſt
id extended Objects, upon a level with
ers of the Underſtanding: and ſince by
ans alſo, we abridge the Fatigue and La-
the Mind, and enable it to carry on its
es in a progreſſive Method, without which
nce, almoſt all the more remote and diſtant Truths
ſciences, muſt have lain for ever hid from our
lge; I think we may venture to affirm, that the
regulating and claſſing our Perceptions, is the great
nd Inſtrument of Invention. It is for this Reaſon
ave endeavoured in ſo particular a Manner to illu-
from Examples in Numbers; becauſe we have here
a perfect Model of the Art itſelf, but ſee alſo in
eſt manner, what Helps it furniſhes, towards a
mprehenſion of Objects, and a maſterly Inveſtiga-
Truth. Nor let any one find fault, as if we had
ather too long upon Matters that are obvious and
o all. For I am apt to think, that tho' very few
gers to the received Method of Notation, and the
Rules of Operation in Arithmetic; yet it is not
e that ſets himſelf to conſider the Addreſs and Saga-
may be ſeen in the Contrivance of them, or to
hoſe Principles of Inveſtigation, which we have here
deduced from them. And this I take to be the
hat we ſometimes meet with Inſtances of Men, who
oughly verſed in the Art of Invention, with regard
articular Branches of Knowledge; yet if taken out
uſual Track, find themſelves immediately at a Stand.

as if wholly bereft of Genius and Penetration. With ſuch Men Invention is a mere Habit, carried on in a Manner purely mechanical, without any Knowledge of the Grounds and Reaſons, upon which the ſeveral Rules of Inveſtigation are founded. Hence they are unfurniſhed with thoſe general Obſervations, which may be alike uſefully applied in all Sciences, with only ſome little neceſſary Variations, ſuited to the Nature of the Subject we are upon. And indeed I know of no ſurer Way to arrive at a fruitful and ready Invention, than by attending carefully to the Procedure of our own Minds, in the Exerciſe of this diſtinguiſhing Faculty; becauſe from the particular Rules relating to any one Branch, we are often enabled to derive ſuch general Remarks, as tend to lay open the very Foundation and Principles of the Art itſelf.

The Manner of proceeding in the Reſolution of Algebraic Queſtions.

XVII. If now we turn our Thoughts from *Arithmetic* to *Algebra*, here alſo we ſhall find, that the great Art of Invention lies, in ſo regulating and diſpoſing our Notices of Things, that we may be enabled to proceed gradually in the Search of Truth. For it is the principal Aim of this Science, by exhibiting the ſeveral Relations of Things in a kind of ſymbolical Language, ſo to repreſent them to the Imagination, as that we may carry our Attention from one to another, in any Order we pleaſe. Hence, however numerous thoſe Relations are, yet by taking only ſuch a Number of them into Conſideration at once, as is ſuited to the Reach and Capacity of the Underſtanding, we avoid Perplexity and Confuſion in our Reſearches, and never put our Faculties too much upon the Stretch, ſo as to loſe ourſelves amidſt the Multiplicity of our own Thoughts. As therefore in *Arithmetic*, we riſe to a juſt Conception of the greateſt Numbers, by conſidering them as made up of various progreſſive Combinations; ſo likewiſe in *Algebra*, thoſe manifold Relations that often intervene, between known and unknown Quantities, are clearly repreſented to the Mind, by throwing them into a Series of diſtinct Equations. And as the moſt difficult Queſtions relating to Numbers are managed with Eaſe, becauſe we can take the Parts or Figures ſeparately, and proceed with them one after another; ſo alſo the moſt intricate Problems of Algebra are in like manner readily unfolded, by examining the ſeveral Equations apart, and unravelling them according to certain eſtabliſhed Rules of Operation. And here it is well worth our Notice, that in very complicated Problems, producing a great Number



Number of different Equations, it for the moſt part ſo happens, that every one of them includes a Variety of unknown Quantities. When therefore we come to ſolve them ſeparately, as it would too much diſtract and entangle the Mind, to engage in the Purſuit of ſo many different Objects at once; our firſt Buſineſs is, by artfully covering the ſeveral Equations together, or by the various Ways of Multiplication, Subſtraction, Addition, and Subſtitution, to derive others from them more ſimple, until at length by ſuch a gradual Proceſs, we arrive at ſome new Equation, with only one unknown Quantity. This done, we ſet ourſelves to conſider the Equation laſt found, and having now to do with an Object ſuited to the Strength and Capacity of the Mind, eaſily by the eſtabliſhed Rules of the Art diſcover the Quantity ſought. In this manner we proceed with all the ſeveral unknown Quantities one after another, and having by a Series of diſtinct Operations traced them ſeparately, the Queſtion is thereby compleatly reſolved.

Of the other Artifices which may be conſidered as ſubſidiary Helps to Invention.

XVIII. HENCE it appears, that the Buſineſs of Invention as practiſed in Algebra, depends entirely upon the Art of abridging our Thoughts, reducing the Number of Particulars taken under Conſideration at once to the feweſt poſſible, and eſtabliſhing that progreſſive Method of Inveſtigation, which we have already ſo fully explained from Examples in Arithmetic. I might eaſily ſhew, that the ſame Obſervation holds equally in other Sciences; but having already exceeded the Bounds I at firſt preſcribed to myſelf in this Chapter, ſhall only add, that beſides the grand Inſtruments of Knowledge already mentioned, there are innumerable other Artifices, ariſing out of the particular Nature of the Subject we are upon, and which may be conſidered as ſubſidiary Helps to Invention. Thus in Geometry, many Demonſtrations of Problems and Theorems are wholly derived from the Conſtruction of the Figure made uſe of, and the drawing of Lines from one Point to another. In like manner in Algebra, the deviſing of proper Equations from the Conditions of the Queſtion propoſed, and contriving neat Expreſſions for the unknown Quantities, contribute not a little to the eaſy Solution of Problems. And when we have even carried on the Inveſtigation to ſome final Equation with only one unknown Quantity; as that unknown Quantity may be variouſly perplexed and entangled with others that are known, ſo as to require a Multiplicity of different Operations, before it can be diſengaged, which often involves

us in long and intricate Calculations, and brings Surds and irrational Quantities in our Way; Algebriſts, to prevent in ſome meaſure theſe Inconveniencies, and ſhorten as much as poſſible the Proceſs, have fallen upon ſeveral Methods of Subſtitution, which are of great Service in very complicated Queſtions. But theſe and ſuch like Artifices of Invention, cannot be explained at length in this ſhort Eſſay. It is enough to have given the Reader a Hint of them, and put him in the way of unravelling them himſelf, when he comes to apply his Thoughts to thoſe particular Branches of Knowledge where they are ſeverally made uſe of.

Of the great Advantages ariſing from a happy Notation or Expreſſion of our Thoughts.

XIX. THERE is one thing however, that in a particular manner deſerves to be taken notice of, before we diſmiſs this Subject; and that is, the great Advantages that may redound to Science, by a happy Notation or Expreſſion of our Thoughts. It is owing entirely to this, and the Method of denoting the ſeveral Combinations of Numbers by Figures ſtanding in different Places, that the moſt complicated Operations in Arithmetic are managed with ſo much Eaſe and Diſpatch. Nor is it leſs apparent, that the Diſcoveries made by Algebra, are wholly to be imputed to that ſymbolical Language made uſe of in it. For by this means we are enabled to repreſent the Relations of Things in the Form of Equations, and by variouſly proceeding with theſe Equations, to trace out Step by Step, the ſeveral Particulars we are in queſt of. Add to all this, that by ſuch a Notation, the Eyes and Imagination are alſo made ſubſervient to the Diſcovery of Truth. For the Thoughts of the Mind riſe up and diſappear, according as we ſet ourſelves to call them into view; and therefore, without ſome particular Method of fixing and aſcertaining them as they occur, the retrieving them again when out of ſight, would often be no leſs painful, than the very firſt Exerciſe of deducing them one from another. When therefore in the Purſuit of Truth, we carry our Attention forward from one Part of the Inveſtigation to another, as nevertheleſs we have frequent occaſion to look back upon the Diſcoveries already paſſed through, could theſe be no otherwiſe brought into view, than by the ſame Courſe of thinking in which they were firſt traced, ſo many different Attentions at once, muſt needs greatly diſtract the Mind, and be attended with infinite Trouble and Fatigue. But now, the Method of fixing and aſcertaining our Thoughts by a happy and well-choſen Notation, entirely removes all theſe Obſtacles. For thus,

en we have occaſion to turn to any former Diſcove-
, as Care is taken all along to delineate them in pro-
Characters, we need only caſt our Eye upon that Part
the Proceſs where they ſtand expreſſed, which will lay
m at once open to the Mind in their true and genuine
rit. By this means we can at any time take a quick and
dy Survey of our Progreſs, and running over the ſeveral
nclusions already gained, ſee more diſtinctly what Helps they
ſſer towards the obtaining of thoſe others we are ſtill in
ſiit of. Nay farther, as the Amount of every Step of
Inveſtigation lies fairly before us, by comparing them va-
ſly among themſelves, and adjuſting them one to another,
come at length to diſcern the Reſult of the whole, and
enabled to form our ſeveral Diſcoveries into an uniform
well-connected Syſtem of Truths, which is the great
d and Aim of all our Enquiries.

Recapitula-tion.

XX. UPON the whole then it appears, that
order to proceed ſucceſsfully in the Exerciſe
Invention, we muſt endeavour as much as
ſible to enlarge the Capacity of the Mind, by accuſtom-
it to wide and comprehenſive Views of Things: that we
ſt habituate ourſelves to a ſtrong and unſhaken Attention,
ich carefully diſtinguiſhes all the Circumſtances that come
our Way, and lets nothing material ſlip its Notice: In
, that we muſt furniſh ourſelves with an ample Variety
intermediate Ideas, and be much in the Exerciſe of ſingling
m out and applying them for the Diſcovery of Truth.
eſe preparatory Qualifications obtained, what depends upon
t lies chiefly in the Manner of combining our Perceptions,
claſſing them together with Addreſs, ſo as to eſtabliſh
rogreſſive Method of Inveſtigation. And here it is of
at Importance, to contrive a proper Notation or Ex-
ſion of our Thoughts, ſuch as may exhibit them accord-
to their real Appearance in the Mind, and diſtinctly
reſent their ſeveral Diviſions, Claſſes, and Relations. This
clearly ſeen in the Manner of computing by Figures in
thmetic, but more particularly in that ſymbolical Lan-
ge, which hath been hitherto ſo ſucceſsfully applied in
avelling of Algebraical Problems. Thus furniſhed, we may
ny time ſet about the Inveſtigation of Truth; and if we
e care to note down the ſeveral Steps of the Proceſs, as
Mind advances from one Diſcovery to another, ſuch an
angement or Diſpoſition of our Thoughts, conſtitutes
at is called the *Method of Invention.* For thus it is plain,
t we follow the natural Procedure of the Underſtanding,

and make the Truths we have unravelled to ſucceed one another, according to the Order in which they preſent themſelves to the Mind, while employed in tracing and finding them out. And here again it well deſerves our Notice, that as by this means the whole Inveſtigation lies diſtinctly before us; ſo by comparing the ſeveral Steps of it among themſelves, and obſerving the Relation they bear one to another, we are enabled to form our Diſcoveries into a regular Syſtem of Knowledge, where the Truths advanced are duely linked together, and deduced in an orderly Series from firſt Principles. This other Manner of combining our Thoughts, is diſtinguiſhed by the Name of the *Method of Science*, which therefore now offers itſelf to be explained, and is accordingly the Subject of the enſuing Chapter.

CHAP. III.

Of the Method of Science.

Neceſſity, as derived from the Contemplation of our Ideas, of a neceſſary and unchangeable Nature.

I. IN order to give the juſter Idea of the Rules peculiar to this Species of Method, and eſtabliſh them upon their proper Foundation, it will be neceſſary to begin with ſettling the Meaning of the Word *Science*, and ſhewing to what Parts of human Knowledge that Term may be moſt fitly applied. We have already obſerved in the firſt Chapter of the ſecond Book, that there are three ſeveral Ways of coming at the Knowledge of Truth. Firſt, by contemplating the Ideas in our own Minds. Secondly, by the Information of the Senſes. Thirdly, by the Teſtimony of others. When we ſet ourſelves to conſider the Ideas in our own Minds, we variouſly compare them together, in order to judge of their Agreement or Diſagreement. Now as all the Truths deduced in this Way, flow from certain Connections and Relations, diſcerned between the Ideas themſelves; and as when the ſame Ideas are brought into Compariſon, the ſame Relations muſt ever and invariably ſubſiſt between them; hence it is plain, that the Knowledge acquired by the Contemplation of our Ideas, is of a neceſſary and unchangeable Nature. But farther, as theſe Relations between our Ideas, are not only ſuppoſed to be real in themſelves, but alſo to be ſeen and diſcerned by the Mind; and

as

as when we clearly perceive a Connection or Repugnance between any two Ideas, we cannot avoid judging them to agree or disagree accordingly; it evidently follows that our Knowledge of this Kind is attended with absolute Certainty and Conviction, insomuch that it is impossible for us to withhold our Assent, or entertain any Doubt as to the Reality of Truths so offered to the Understanding. The Relation of Equality between the Whole and all its Parts, is apparent to every one, who has formed to himself a distinct Notion of what the Words *Whole* and *Part* stand for. No Man therefore, who has these two Ideas in his Mind, can possibly doubt of the Truth of this Proposition, *that the Whole is equal to all its Parts.* For this would be only endeavouring to persuade himself, that that was not, which he plainly and unavoidably perceives to be. So that in all Cases where we discern a Relation between any of our Ideas, whether immediately by comparing them one with another, or by means of intermediate Ideas, that lay it open distinctly to the Understanding; the Knowledge thence arising is certain and infallible. I say infallible; because we not only perceive and own the Truth of Propositions so offered to the Mind, but having at the same time a clear View of the Ground on which our Assent rests, are entirely satisfied within ourselves, that we cannot possibly be deceived in this Perception.

As flowing from the Information of the Senses, begets undoubted Assurance, but excludes not all Possibility of being deceived.

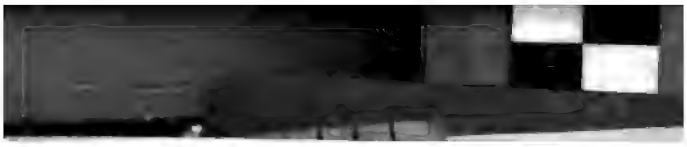
II. THE second Way of coming at Knowledge is by means of the Senses. From them we receive Information of the Existence of Objects without us, of the Union and Conjunction of different Qualities in the same Subject, and of the Operations of Bodies one upon another. Thus our Eyes tell us, that there is in the Universe such a Body as we call the Sun; our Sight and Touch, that Light and Heat, or at least the Power of exciting those Perceptions in us, co-exist in that Body; and lastly, by the same Sight we also learn, that Fire has the Power of dissolving Metals, or of reducing Wood to Charcoal and Ashes. But now with regard to this Kind of Knowledge we are to observe, that though when the Organs of the Body are rightly disposed, and operate in a natural Way, we never doubt the Testimony of our Senses, but form most of the Schemes of Life upon their Information; yet are not the Truths of this Class attended with that absolute and infallible Assurance, which belongs to those derived from the Contemplation of our own Ideas. We find that the Senses frequently represent Objects as really existing, which

yet

yet have no Being but in our own Imaginations; as in Dreams, Phrenſies, and the Deliriums of a Fever. A Diſorder too in the Organs, makes us often aſcribe Qualities to Bodies, entirely different from thoſe they appear to poſſeſs at other times. Thus a Man in the Jaundice ſhall fancy every Object preſented to him yellow; and in bodily Diſtempers, where the Taſte is greatly vitiated, what naturally produces the Idea of Sweetneſs, is ſometimes attended with a quite contrary Senſation. It is true, theſe Irregularities neither ought, nor indeed do they with conſiderate Men in any ways tend, to diſcredit the Teſtimony of Experience. He that awake, in his Senſes, and ſatisfied that his Organs operated duely, ſhould take it into his Head to doubt, whether Fire would burn, or Arſenic poiſon him, and therefore raſhly venture upon theſe Objects, would ſoon be convinced of his Error, in a Way not much to his liking. As nevertheleſs the Senſes do ſometimes impoſe upon us, there is no abſolute and infallible Security that they may not at others; and therefore the Aſſurance they produce, though reaſonable, ſatisfying, and ſufficiently well founded to determine us in the ſeveral Actions and Occurrences of Life, is yet of ſuch a Nature, as not neceſſarily to exclude all Poſſibility of being deceived. Hence ſome Men go ſo far as to maintain, that we ought to diſtruſt our Senſes altogether: Nay, whole Sects among the Ancients, becauſe of this bare Poſſibility, which really extends no farther than to Matters of *Experience* and *Teſtimony*, yet eſtabliſh it as a Principle, that we ought to doubt of every thing. Nor are there wanting Philoſophers among the Moderns, who upon the ſame Grounds deny the Exiſtence of Bodies, and aſcribe the Perceptions excited in us, not to the Action of external Matter, but to certain eſtabliſhed Laws in Nature, which operate upon us in ſuch manner, as to produce all thoſe ſeveral Effects, that ſeem to flow from the real Preſents of Objects variouſly affecting our Perception. It is not my Deſign here to enter into a particular Diſcuſſion of theſe Matters; all I aim at is to ſhew, that the Teſtimony of the Senſes, though ſufficient to convince ſober and reaſonable Men, yet does not ſo unavoidably extort our Aſſent, as to leave no room for Suſpicion or Diſtruſt.

Aſſent founded upon Teſtimony, is of a full tho' uncertain Nature, tho' in many Caſes entire.

III. THE third and laſt Way of coming at Truth is, by the Report and Teſtimony of others. This regards chiefly paſt Facts and Tranſactions, which having no longer any Exiſtence, cannot be brought within the preſent Sphere of our Obſervation. For as theſe could never have fallen



under our Cognizance, but by the Rela- of ſuch as had ſufficient Opportunities of informed; it is hence apparent, that all our wledge of this Kind, is wholly founded upon the Con- ıce of Teſtimony. But now, although this in many Caſes ſufficient Ground of Aſſent, ſo as to produce a ready Be- n the Mind, yet it is liable to ſtill greater Objections, even the Reports of Experience. Our Senſes, it is true, ome Occaſions deceive us, and therefore they may poſſi- on others. But this bare Poſſibility creates little or no uſt; becauſe there are fixed Rules of judging, when operate according to Nature, and when they are per- l or given up to Caprice. It is otherwiſe in Matters of human Teſtimony. For there, beſides the Suppoſition the Perſons themſelves may have been deceived, there is ther Poſſibility, that they may have conſpired to impoſe others by a falſe Relation. This Conſideration has er Weight, as we frequently meet with ſuch Inſtances liſingenuity among Men, and know it to be their Inte- in ſome particular Caſes, to diſſemble and miſrepreſent Truth. It would nevertheleſs be the Height of Folly, ject all human Teſtimony without Diſtinction, becauſe of bare Poſſibility. Who can doubt whether there ever in the World ſuch Conquerors as *Alexander* and *Julius r?* There is no abſolute Contradiction indeed in ſuppo- that Hiſtorians may have conſpired to deceive us. But an univerſal Concurrence to a Falſhood, without one adicting Voice, is ſo extremely improbable, and ſo very e what uſually happens in the World, that a wiſe Man as ſoon perſuade himſelf to believe the groſſeſt Abſur- as to admit of a Suppoſition ſo remote from every Ap- nce of Truth. Hence the Facts of Hiſtory, when well at- , are readily embraced by the Mind; and though the nce attending them be not ſuch, as produces a neceſſary nfallible Aſſurance, it is yet abundantly ſufficient to juſtify Belief, and leave thoſe without Excuſe, who upon the bare nd of Poſſibility, are for rejecting entirely the Conveyance eſtimony.

without Wavering or Diſtruſt.

. UPON the whole then it appears, that ab- Certainty, ſuch as is attended with una- ble Aſſent, and excludes all Poſſibility of be- leceived, is to be found only in the Contem- n of our own Ideas. In Matters of Expe- e and Teſtimony, Men we ſee may frame nces for Suſpicion and Diſtruſt: But in that of Knowledge which regards the Relations

Science [illegible] entirely to that Branch of Knowledge which is derived from the Contemplation of our Ideas.

of

of our Ideas, none ſuch can have place. For as all theſe ſeveral Relations are either immediately diſcerned by the Mind, or traced by means of intermediate Ideas, where Self-evidence is ſuppoſed to accompany every Step of the Procedure, it is abſolutely impoſſible for a Man to perſuade himſelf that that is not, which he plainly and neceſſarily perceives to be. Now it is to Knowledge attended with this laſt Kind of Evidence alone, that in Strictneſs and Propriety of Speech we attribute the Name of *Science*. For *Science* implies Perception and Diſcernment, what we ourſelves ſee, and cannot avoid ſeeing; and therefore has place only in Matters of abſolute Certainty, where the Truths advanced are either intuitive Propoſitions, or deduced from them in a Way of ſtrict Demonſtration. And as this Kind of Certainty is no where to be found, but in inveſtigating the Relations of our Ideas; hence it is plain, that *Science*, properly ſpeaking, regards wholly the firſt Branch of human Knowledge; that which we have ſaid is derived from a Contemplation of the Ideas in our own Minds.

Our Knowledge of the real Exiſtence of Objects not intuitive.

V. BUT here I expect it will be aſked, if *Science* and *Demonſtration* belong only to the Conſideration of our own Ideas, what Kind of Knowledge is it that we have relating to Bodies, their Powers, Properties, and Operations one upon another? To this I anſwer, that we have already diſtinguiſhed it by the Name of *Natural* or *Experimental*. But that we may ſee more diſtinctly wherein the Difference between *Scientifical* and *Natural* Knowledge lies, it may not be improper to add the following Obſervations. When we caſt our Eyes towards the Sun, we immediately conclude, that there exiſts an Object without us, correſponding to the Idea in our Minds. We are however to take notice, that this Concluſion does not ariſe from any neceſſary and unavoidable Connection diſcerned, between the Appearance of the Idea in the Mind, and the real Exiſtence of the Object without us. We all know by Experience, that Ideas may be excited, and that too by a ſeeming Operation of Objects upon our Senſes, when there are in fact no ſuch Objects exiſting; as in Dreams, and the Deliriums of a Fever. Upon what then is the before-mentioned Concluſion properly grounded? Why evidently upon this: That as we are ſatisfied our Organs operate duely, and know that every Effect muſt have a Cauſe, nothing is more natural than to ſuppoſe, that where an Idea is excited in the Mind, ſome Object exiſts correſponding to the Idea, which is the Cauſe

of

of that Appearance. But as this Concluſion, by what we have ſeen, is not neceſſary and unavoidable, hence there is no *Intuition* in the Caſe, but merely a probable Conjecture, or reaſonable Preſumption, grounded upon an intuitive Truth.

Abſolute Certainty in natural Knowledge confined to what falls under our immediate Notice.

VI. AGAIN, when a Piece of Gold is diſſolved in *Aqua Regia*, we ſee indeed and own the Effect produced, but cannot be ſaid in Strictneſs and Propriety of Speech to have any Perception or Diſcernment of it. The Reaſon is, becauſe being unacquainted with the intimate Nature both of *Aqua Regia* and Gold, we cannot from the Ideas of them in our Minds deduce, why the one muſt operate upon the other in that particular Manner. Hence it is, that our Knowledge of the Facts and Operations of Nature, extends not with Certainty beyond the preſent Inſtance, or what falls under our immediate Notice; ſo that in all our Reſearches relating to them, we muſt ever proceed in the Way of Trial and Experiment, there being here no general or univerſal Truths, whereon to found *Scientifical* Deductions. Becauſe the Solution of Gold in *Aqua Regia* holds in one Experiment, we cannot thence infallibly conclude that it will hold in another. For not knowing upon what it is in either of theſe Bodies, that the Effect here mentioned depends, we have no abſolute Certainty in any new Experiment we propoſe to make, that the Objects to be applied one to another, have that preciſe Texture and Conſtitution, from which this Solution reſults. Chemiſts know by Experience, that Bodies which go by the ſame Name, and have the ſame outward Appearance, are not always however exactly alike in their Powers and Operations. In vain do they often ſearch for thoſe Properties in one Piece of *Antimony*, which on former Occaſions they may have found in another; and by this means, to their no ſmall Mortification, find themſelves frequently diſappointed, in very coſtly and promiſing Experiments. Nor have we any expreſs and poſitive Aſſurance, that the very Bodies with which we have formerly made Experiments, continue ſo exactly the ſame, as to afford the like Appearances in any ſucceeding Trial. A thouſand Changes happen every Moment in the natural World, without our having the leaſt Knowledge or Perception of them. An Alteration in our Atmoſphere, the Approach or Receſs of the Sun, his Declination towards the North or South, not only vary the outward Face of Things, but occaſion many Changes in the human Conſtitution itſelf, which we yet perceive not when they happen,

pen; nor ſhould ever be ſenſible of, but by the *Effects* and Conſequences reſulting from them. And whether Alterations analogous to theſe, may not ſometimes be produced in the Frame and Texture of many of thoſe Bodies that ſurround us, is what we cannot with Certainty determine. Hence from an Experiment's ſucceeding in one Inſtance, we cannot infallibly argue that it will ſucceed in another, even with the ſame Body. The Thing may indeed be probable, and that in the higheſt Degree; but as there is ſtill a Poſſibility that ſome Change may have happened to the Body, unknown to us, there can be no abſolute Certainty in the Caſe.

What Kind of Knowledge of Body would deſerve the Name of Science.

VII. HAD we ſuch an intimate Acquaintance with the Structure both of *Aqua Regia* and Gold, as to be able thence to diſcern, why the one ſo operates upon the other as to occaſion its Diſſolution, inſomuch that from the Ideas of them in our own Minds we could clearly deduce, that Bodies of ſuch a Make applied one to another, muſt neceſſarily produce the Effect here mentioned; our Knowledge would then be *Scientifical*, and ſtand upon the Foundation either of *Intuition* or *Demonſtration*, according as the Perception was immediate, or attained by means of intervening Ideas. In this Caſe therefore, having two ſtandard Ideas in our Minds, whoſe Relations we perfectly well know; wherever we found Objects conformable to theſe Ideas, we could then pronounce with Certainty, that the Application of them one to another would be attended with the above Effect: Becauſe whatever is true in Idea, is unavoidably ſo alſo in the Reality of Things, where Things exiſt anſwerable to theſe Ideas. If it be true in Idea, that a Parallelogram is the double of a Triangle, ſtanding upon the ſame Baſe, and between the ſame Parallels; the ſame will be true of every real Triangle and Parallelogram, that exiſt with the Conditions here mentioned. We are likewiſe to obſerve, that the Changes to which Bodies are daily liable, could produce no Confuſion or Perplexity in natural Knowledge, did it ſtand upon the Foundation here mentioned. For in ſuch a Caſe, the Powers and Properties of Objects being deduced from the Ideas of them in our own Minds, would no otherwiſe be applied to Things really exiſting, than as theſe Things were found perfectly conformable to our Ideas. When therefore an Alteration happened in any Body, as it would by this means differ from that ſtandard Idea, whence its former Properties were ſeen to flow, we muſt of courſe be ſenſible, that ſome ſuitable Change would follow in the Properties themſelves, and that its

vers and Operations in regard of other Bodies, would in all reſpects the ſame.

. BUT what is ſtill more remarkable, we upon this Suppoſition be able to determine itual Action and Influence of Bodies, with-aving recourſe to Trial or Experiment. e for inſtance a perfect Knowledge of the e Nature and Compoſition of an animal Body, and of rticular Poiſon that is infuſed into it by the Bite of a ſo as clearly and diſtinctly to diſcern how they are one to another; we might thence ſcientifically de-without the Help of Experiments, that the Bite of a would ſo unhinge the human Fabric, and produce erments and Combuſtions in it, as muſt neceſſarily be d by a total Extinction of all the vital Functions, and hat admirable Machine a mere lifeleſs Lump. But as rfect and adequate Ideas of Objects, and their mutual des one to another, are plainly beyond the reach of eſent Faculties, it were vain for us to think of im-g natural Knowledge by abſtract Reaſoning, or ſcientifi-eductions. Experience is here the true and proper ition of our Judgments, nor can we by any other arrive at a Diſcovery of the ſeveral Powers and Pro- of Bodies. How long might a Man contemplate the of Hemlock, examine the Structure of its Parts in a cope, and torture and analyſe it by all the Proceſſes of try, before he could pronounce with Certainty the it will have upon a human Body? One ſingle Expe- lays that open in an Inſtant, which all the Wit and on of Men would never of themſelves have been trace. The ſame holds in all the other Parts of Philoſophy. Our Diſcoveries relating to Electricity, wers and Properties of the Load-ſtone, the Force of wder, *&c.* were not gained by Reaſoning, or the ration of our abſtract Ideas, but by means of Expe- made with the Bodies themſelves. Hence it hap- that while the Philoſophy of *Ariſtotle* prevailed in the , which dealt much in metaphyſical Notions, occult s, Sympathies, Antipathies, and ſuch like Words : Meaning; the Knowledge of Nature was at a ſtand: Men pretended to argue abſtractedly about Things, ch they had no perfect and adequate Ideas, whereon nd ſuch a Method of Reaſoning. But now in the Age, that we have returned to the Way of Trial periment, which is indeed the only true Foundation

Experience the only Foundation of natural Knowledge.

of

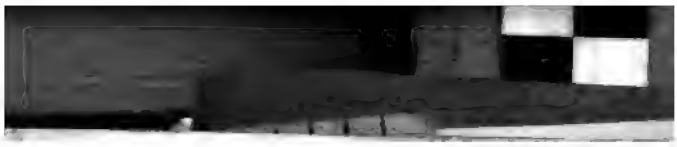
of natural Philoſophy; great Advances have already been made, and the Proſpect of ſtill greater lies before us.

Difference between ſcientifical and natural Knowledge.

IX. AND thus at length we may ſufficiently underſtand wherein the proper Difference lies, between ſcientifical and natural Knowledge. In Matters of Science we argue from the Ideas in our own Minds, and the Connections and Relations they have to one another. And as when theſe Relations are ſet clearly and plainly before us, we cannot avoid perceiving and owning them, hence all the Truths of this Claſs produce abſolute Certainty in the Mind, and are attended with a neceſſary and unavoidable Aſſent. It is otherwiſe in the Caſe of natural Knowledge. Intuition and inward Perception have here no Place. We diſcern not the Powers and Properties of thoſe Objects that ſurround us, by any View and Compariſon of the Ideas of them one with another, but merely by Experience, and the Impreſſions they make on the Senſes. But now the Reports of Senſe happening in ſome Inſtances to deceive us, we have no infallible Aſſurance that they may not in others; which weakens not a little the Evidence attending this kind of Knowledge, and leaves room for Suſpicion and Diſtruſt. Nay, what is yet more conſiderable, as we have no perfect and adequate Ideas of Bodies, repreſenting their inward Conſtitution, or laying open the Foundation upon which their Qualities depend, we can form no univerſal Propoſitions about them, applicable with Certainty in all particular Inſtances. Fire, we ſay, diſſolves Metals. This, though expreſſed indefinitely, is however only a particular Truth, nor can be extended with abſolute Aſſurance, beyond the ſeveral Trials made. The Reaſon is, that being ignorant of the inward Frame and Compoſition both of Fire and Metals; when Objects are offered to us under that Name, we have therefore no poſitive Certainty, that they are of the very Make and Texture requiſite to the Succeſs of the Experiment. The Thing may indeed be probable in the higheſt Degree, but for want of ſtandard and ſettled Ideas, we can never arrive at a clear and abſolute Perception in the Caſe.

The Manner of Reaſoning in natural Knowledge.

X. As nevertheleſs it is certain, that many general Concluſions in natural Philoſophy, are embraced without Doubt or Heſitation, nay, that we form moſt of the Schemes and Purſuits of Life upon that Foundation; it will naturally be aſked here, how come we by this Aſſurance? I anſwer, not ſcientifically, and in the way of ſtrict Demonſtration, but



Analogy, and an Induction of Experiments. We diſtin-
Fire, for inſtance, by ſuch of its Qualities, as lie more
iately open to the Notice of the Senſes; among which
and Heat are the moſt conſiderable. Examining ſtill
into its Nature, we find it likewiſe poſſeſſed of the
of diſſolving Metals. But this new Property not hav-
y neceſſary Connection that we can trace, with thoſe
alities by which Fire is diſtinguiſhed, we cannot there-
ue with Certainty, that where-ever Light and Heat, *&c.*
Power of diſſolving Metals co-exiſts with them. 'Tis
after we have tried the thing in a Variety of Experi-
and found it always to hold, that we begin to preſume
ay be really ſome ſuch Connection, tho' our Views are
rt and imperfect to diſcover it. Hence we are led to
general Concluſion, arguing from what has already
d, to what will happen again in the like Caſes; inſo-
at where we meet with all the other Properties of Fire
Body, we have not the leaſt Doubt, but that upon
e Power above-mentioned will be found to belong to
This is called Reaſoning by *Analogy*; and it is, as we
nded entirely upon Induction, and Experiments made
rticular Objects: the more preciſe and accurate our
theſe Objects are, and the greater the Variety of Ex-
ts upon which we build our Reaſoning, the more cer-
l undoubted will the Concluſions be. 'Tis in this
we arrive at all the general Truths of natural Know-
as that the Bite of certain Animals is mortal; that a
touched by a Load-ſtone points to the North; that
belongs univerſally to all Bodies; and innumerable
which tho' not capable of ſtrict Demonſtration, are
leſs as readily embraced upon the Foundation of Ana-
the moſt obvious and intuitive Judgments; nay and
fixed and ſteady Principles of Action, in all the Aims
uits of Life.

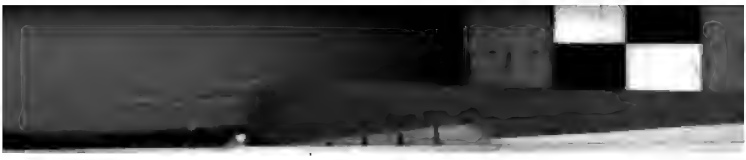
How even ſcientifical Reaſoning may be introduced into it.

AND here again it is particularly remark-
it having aſcertained the general Proper-
Things by Analogy, if we proceed next
iſh theſe as *Poſtulata* in Philoſophy, we
this Foundation build ſtrict and Mathe-
Demonſtrations, and thereby introduce *ſcientifical* Rea-
into natural Knowledge. In this manner Sir *Iſaac*
having determined the Laws of Gravity by a Variety
iments, and laying it down as a Principle, that it
according to thoſe Laws thro' the whole Syſtem of
has thence in a Way of ſtrict Demonſtration dedu-
hole Theory of the heavenly Motions. For granting

once this *Poſtulatum*, that Gravity belongs univerſally to all Bodies, and that it acts according to their ſolid Content, decreaſing with the Diſtance in a given Ratio; what Sir *Iſaac* has determined in regard to the Planetary Motions, follows from the bare Conſideration of our own Ideas; that is, neceſſarily and *ſcientifically*. Thus likewiſe in *Optics*, if we lay it down as a Principle, that Light is propagated on all Sides in right Lines, and that the Rays of it are reflected and refracted, according to certain fixed invariable Laws, all which is known to be true by Experience; we can, upon this Foundation, eſtabliſh Mathematically the Theory of Viſion. The ſame happens in *Mechanics*, *Hydroſtatics*, *Pneumatics*, &c. where from *Poſtulata* aſcertained by Experience, the whole Theory relating to theſe Branches of Knowledge, follows in a Way of ſtrict Demonſtration. And this I take to be the Reaſon, why many Parts of Natural Philoſophy, are honoured with the Name of *Sciences*. Not that they are ultimately founded upon Intuition; but that the ſeveral Principles peculiar to them, being aſſumed upon the Foundation of Experience, the Theory deduced from theſe Principles, is eſtabliſhed by *ſcientifical* Reaſoning.

Yet ſtill Experience is the ultimate Ground of our aſſent.

XII. COULD we indeed diſcern any neceſſary Connection, between Gravity and the known eſſential Qualities of Matter, inſomuch that it was inſeparable from the very Idea of it; the whole Theory of the Planetary Motions, would then be ſtrictly and properly *ſcientifical*. For ſeeing from the Notion of Gravity, we can demonſtratively determine the Laws, that Bodies will obſerve in their Revolutions, in any known Circumſtances; if the Circumſtances relating to any Syſtem of Bodies can be traced, and Gravity is ſuppoſed eſſential to them, we can then, from the bare Conſideration of our own Ideas, deduce all their Motions and Phænomena. Now this is preciſely what Sir *Iſaac* has done in regard to our Planetary Syſtem. He has determined the Circumſtances of the Bodies that compoſe it, in reſpect of Situation, Diſtance, Magnitude, &c. all which being ſuppoſed, if they are eſſentially actuated by Gravity, their ſeveral Revolutions and Appearances muſt be equally eſſential. But as the Principle of Gravitation cannot be accounted for by the known Qualities of Matter, neither can this Theory be immediately deduced from the Idea of Body; and therefore, tho' our Reaſoning in this Part of Philoſophy be truly ſcientifical, yet as the Principle upon which that Reaſoning is grounded, is derived from Experience, the Theory itſelf muſt needs *ultimately* reſt upon the ſame Foundation. And thus even the Doctrine



Doctrine of the Planetary Motions, tho' ſeemingly eſtabliſhed by Mathematical Reaſoning, falls yet in Strictneſs and Propriety of Speech, under the Head of Natural Knowledge. For in this preciſely conſiſts the Difference between *Science*, and what we call the Philoſophy of *Nature*; that the one is grounded ultimately on *Intuition*, the other on *Experience*. As the Obſervation here made, holds alike in all the other Branches of Natural Philoſophy, into which *ſcientifical* Reaſoning has been introduced; it is hence apparent, that they are not *Sciences* in the ſtrict and proper Senſe of the Word, but only by a certain Latitude of Expreſſion, common enough in all Languages. What we have therefore ſaid above, relating to the Impoſſibility of improving Natural Knowledge by ſcientifical Deductions, is not contradicted by any thing advanced in this Section. We there meant Deductions grounded ultimately on Intuition, and derived from a Conſideration of the abſtract Ideas of Objects in our own Minds; not ſuch as flow from *Poſtulata* aſſumed upon the Foundation of Experience. For theſe laſt, as we have already obſerved, are not truly and properly Scientifical, but have obtained that Name, merely on account of the Way of Reaſoning, in which they are collected from the ſaid *Poſtulata*.

The Manner of Reaſoning in Hiſtorical Knowledge.

XIII. If then abſolute and infallible Certainty is not to be obtained in Natural Knowledge, much leſs can we expect it in Hiſtorical. For here Teſtimony is the only Ground of Aſſent, and therefore the Poſſibility of our being deceived, is ſtill greater than in the Caſe of Experience. Not only the who reports the Fact may himſelf have formed a wrong Judgment; but could we even get over this Scruple, there is ſtill room to ſuſpect, that he may aim at impoſing upon us by a falſe Narration. In this Caſe therefore it is plain, there can be no Intuition or inward Perception of Truth, no ſtrict and abſolute Demonſtration, and conſequently no *Science*. There is however a Way of Reaſoning even here, that begets an entire Acquieſcence, and leads us to embrace without wavering, the Facts and Reports of Hiſtory. If for inſtance it appears, that the Hiſtorian was a Man of Veracity; if he was a competent Judge of what he relates; if he had ſufficient Opportunities of being informed; if the Book that bears his Name was really writ by him; if it has been handed down to us uncorrupted; in fine, if what he relates is probable in itſelf, falls in naturally with the other Events of that Age, and is atteſted by contemporary Writers. By theſe and ſuch like Arguments, founded partly on Criticiſm, partly on probable Conjecture, we judge of paſt Tranſactions; and though they

are not capable of *scientifical* Proof, yet in many Cases we arrive at an undoubted Assurance of them. For as it is absurd to demand Mathematical Demonstration in Matters of Fact, because they admit not of that Kind of Evidence; it is no less so to doubt of their Reality, when they are proved by the best Arguments their Nature and Quality will bear.

Scepticism necessarily excluded from Matters of Science.

XIV. AND thus we see in the several Divisions of human Knowledge, both what is the Ground of Judging, and the Manner of Reasoning, peculiar to each. In *Scientifical* Knowledge, which regards wholly the abstract Ideas of the Mind, and those Relations and Connections they have one with another; our Judgments are grounded on *Intuition*, and the Manner of Reasoning is by *Demonstration*. In *Natural* Knowledge, respecting Objects that exist without us, their Powers, Properties, and mutual Operations; we judge on the Foundation of *Experience*, and reason by *Induction* and *Analogy*. Lastly, in *Historical* Knowledge, which is chiefly conversant about past Facts and Transactions; *Testimony* is the Ground of Judgment, and the Way of Reasoning is by *Criticism* and *probable Conjecture*. And now I think we are able effectually to overthrow that absurd Kind of *Scepticism* maintained by some of the Ancients, which brings all Propositions upon a level, and represents them as equally uncertain. What gave the first Rise to this Doctrine was, the Caprice of certain Philosophers, who observing that the Reports of Sense and Testimony were in some Instances deceitful, took thence occasion to suppose that they might be so likewise in others, and thereupon established it as a Principle, that we ought to doubt of every thing. But even with respect to this Doubting we are to observe, that it can in fact extend no farther than to Matters of *Experience* and *Testimony*, being totally and necessarily excluded from *Scientifical* Knowledge. When Ideas make their Appearance in the Understanding, it is impossible for us to doubt of their being there. And when the Relations of any of our Ideas are clearly and distinctly discerned by the Mind, either immediately, which is *Intuition*, or by means of intervening Ideas, which is *Demonstration*; it would be in vain for us to endeavour to persuade ourselves that that is not, which we plainly and unavoidably perceive to be. In this Case therefore we cannot with-hold our Assent; Truth forces its Way over all Opposition, and breaks in with so much Light upon the Mind, as to beget absolute and infallible Certainty.

And to be answered with Caution.

XV. INDEED in Natural and Historical Knowledge *Scepticism* may have place; because, as we have said, there is a Possibility of our being deceived

Matters of Experience and Teſtimony.

ceived. But then it is to be obſerved, that a bare Poſſibility is a very weak Ground, whereon to bottom any Philoſophical Tenet. It is poſſible hat *Great Britain* may be ſwallowed up by the Sea before o-morrow; but I believe no Man is on this Account inlined to think that it will be ſo. It is poſſible the whole uman Race may be extinguiſhed the next Inſtant; yet this oſſibility creates no Apprehenſion that the thing itſelf will ally happen. In a word, we ought to judge of things y the Proofs brought to ſupport them, not by bare abſtract oſſibilities; and when we have all the Evidence they are apable of, that alone is ſufficient to convince, tho' perhaps ie Contrary cannot be ſhewn to imply a Contradiction. Will ny wiſe and conſiderate Man doubt, whether there be ſuch a lace as *America*, becauſe he cannot prove by any neceſſary rgument, that it is abſolutely impoſſible all the Relations oncerning it ſhould be falſe? Strict and rigorous Demonrations belong not to Hiſtory, or the Philoſophy of Nature. he Way of Reaſoning in theſe Branches of Knowledge is by rguments drawn from Experience and Teſtimony. And hen the Truth of any Propoſition is in this manner ſuffiiently aſcertained, inſomuch that it appears with all the vidence it is capable of, and we have as great Reaſon to elieve that it is, as we could poſſibly have ſuppoſing it ere, is not this upon the Matter as ſatisfactory as a Demonration? It muſt be owned indeed, there is no inward Perception in the Caſe, and therefore our Aſſent cannot be ſaid o be neceſſary and unavoidable. Men may in theſe Matters be *Sceptics* if they pleaſe; and if they are reſolved upn it, it is in vain to contend with Obſtinacy and Perverſeeſs. I cannot however but obſerve, that if they will really ct up to their own Principles, and treat all things in good arneſt as uncertain, that admit not of ſtrict ſcientifical Proof; heir Conduct muſt be the very Madneſs of Folly. No Man an demonſtrate Mathematically, that Poiſon has not been onveyed into his Meat or Drink. And if he will be ſo ery cautious as not to taſte of either, till he has reached his Degree of Certainty, I know no other Remedy for im, but that in great Gravity and Wiſdom he muſt die or Fear of Death. The Truth of it is, the moſt zealous atrons of *Scepticiſm*, after all their pretended Doubts and cruples, find it yet convenient to behave in the ſeveral ccurrences of Life, as if they gave entire Credit to the eports of Senſe and Teſtimony. They will no more venure upon a Doſe of Arſenic, or ruſh into the Midſt of glowing Furnace, than if they verily believed Death would e the Conſequence. *And* though in this it muſt be own-

ed they act discreetly, yet have we hence at the same time a very convincing Argument of the Absurdity of those Notions they affect to entertain. In reality, can any thing be more ridiculous, than to give into a Scheme of Thinking, which we find ourselves necessitated to contradict in almost every Occurrence of Life? Opinions are not to be taken up out of Caprice and Fancy, but to serve as Principles of Action, and standing Rules of Behaviour. When they answer not this main Purpose, they are unavailing and fruitless, and an obstinate Adherence to them, in spite of the repeated Admonitions of Experience, justly deserves to be branded for Folly. We shall not therefore attempt to multiply Arguments in a Matter so obvious, it sufficiently answering our present Purpose to have shewn; that Doubting and Uncertainty have no place in scientifical Knowledge, and that even in Matters of History, and the Facts of Nature, an undistinguishing Scepticism would be in the highest Degree absurd.

Science applicable to the Concerns of Human Life.

XVI. BUT here perhaps it will be asked: Why all this mighty Noise about Science, when even according to the present Account, it seems to be so very capricious and arbitrary a Thing? For seeing it is wholly confined to the Consideration of our Ideas, and we are at liberty to frame and combine those Ideas at pleasure; this indeed opens a Way to Castles in the Air of our own building, to many chimerical and fanciful Systems, which Men of warm and lively Imaginations love to entertain themselves with; but promises little of that Knowledge which is worthy of a wise Man's Regard, and respects the great Ends and Purposes of Life. Where is the Advantage of barely contemplating our Ideas, and tracing their several Habitudes and Relations, when it is in truth the Reality of Things that we are chiefly concerned to know, and those Respects they bear to us and one another? To this I answer: that if indeed our Ideas no way regarded Things themselves, the Knowledge acquired by their means would be of very little Consequence to human Life. But since, as we have already observed, whatever is true in Idea, is unavoidably so also in the Reality of Things, where Things exist answerable to these Ideas; it is apparent, that by copying our Ideas with Care from the real Objects of Nature, and framing them in a Conformity to those Conjunctures and Circumstances in which we are most likely to be concerned, a Way is laid open to Discoveries of the greatest Importance to Mankind. For in this Case, our several Reasonings and Conclusions, holding no less of the Objects themselves, than of *the Ideas* by which they are represented, may be therefore *applied* with Certainty to these Objects, as often as they fall

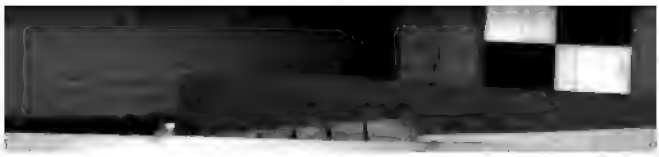
under

under our Notice. Thus Mathematicians, having formed to hemſelves Ideas of Cones, Cylinders, Spheres, Priſms, *&c.* ariouſly compare them together, examine their ſeveral Proerties, and lay down Rules by which to calculate their reative Bulk and Dimenſions. But now as Bodies anſwering n Figure to theſe Ideas, come frequently under our Obſeration, we have by this means an Opportunity of applying Mathematical Knowledge to the common Concerns of Life; nd by determining preciſely the Quantity of Extenſion in ach Body, can the better judge, how far they will anſwer ne Purpoſes we have in view. The ſame thing happens in olitics and Morality. If we form to ourſelves Ideas of ſuch ommunities, Connections, Actions, and Conjunctures, as do r may ſubſiſt among Mankind; all our Reaſonings and Conluſions will then reſpect real Life, and ſerve as ſteady Maims of Behaviour in the ſeveral Circumſtances to which it liable. It is not therefore enough that we ſet about the onſideration of any Ideas at random; we muſt farther take are that thoſe Ideas truly regard things themſelves: for lthough Knowledge is always certain when derived from the ontemplation of our own Ideas, yet is it then only uſeful nd worthy our Regard, when it reſpects Ideas taken from ne real Objects of Nature, and ſtrictly related to the Conerns of human Life.

The Method of Science begins with aſcertaining our Ideas.

XVII. HAVING thus ſhewn that there is ſuch thing as *Science*, fixed and aſcertained the ounds of it, and explained its great Uſe and mportance in the Affairs of Mankind; it now emains that we lay down the Rules of Method eculiar to this Branch of Knowledge, and give me Account of the Manner, in which that Certainty and onviction which are inſeparable from it, may be moſt natually and effectually produced. *Science*, as we have ſaid, reards wholly the abſtract Ideas of the Mind, and the Relaions they have to one another. The great Secret therefore of ttaining it lies, in ſo managing and conducting our Thoughts, s that theſe ſeveral Relations may be laid open to the View f the Underſtanding, and become the neceſſary and unvoidable Objects of our Perception. In order to this we muſt make it our firſt Care, diſtinctly to frame and ſettle he Ideas, about which our Enquiries are to be employed. For as the Relations ſubſiſting between them can no other viſe be diſcerned, than by comparing them one with another; nd as this Compariſon neceſſarily ſuppoſes, that the Ideas hemſelves are actually in the Mind, and at that very Time nder our immediate Inſpection; it plainly follows, that all

Science muſt begin with fixing and aſcertaining thoſe Ideas. Now our Ideas, as has been already obſerved in the firſt Book, come all very naturally within the Diviſion of *Simple* and *Complex*. *Simple* Ideas are excited by actual Impreſſions made upon the Underſtanding; and as they exiſt under one uniform Appearance, without Variety or Compoſition, are in no danger of being miſtaken, or confounded one with another. It is otherwiſe in our *Complex* Conceptions. For these conſiſting of many ſimple Ideas joined together, great Care muſt be taken, that we acquaint ourſelves with the true Number combined, and the Order and Manner of their Connection. By this means alone are theſe our more intricate Notices kept diſtinct and invariable, inſomuch that in all our ſeveral Views of them, they ever have the ſame Appearance, and exhibit the ſame Habitudes and Reſpects. Here therefore, properly ſpeaking, the Art of Knowledge begins. For although we find it eaſy enough to bound and ſettle our Ideas, where they conſiſt of but few ſimple Perceptions; yet when they grow to be very complicated, it often requires great Addreſs and Management, to throw them into ſuch Views, as may prevent that Confuſion which is apt to ariſe, from the joint Conſideration of a Multiplicity of different Objects. Hence that Gradation in the Compoſition of our Ideas, which we have explained at large in the laſt Chapter of the firſt Book. For as they are by this means formed into different Orders, and theſe Orders ariſe continually one out of another; the Underſtanding, by taking them in a juſt Succeſſion, gradually mounts to the higheſt Conceptions, and can at any time, with incredible Eaſe and Expedition, bring all their Parts diſtinctly into View. To know therefore the full Value of this Contrivance, we muſt attentively conſider the ſtrict Connection that obtains, between the ſeveral Claſſes of our Perceptions, when diſpoſed in ſuch a Series. Every ſucceeding Order is formed out of thoſe Combinations that conſtitute the Rank next below it. And as in advancing from one Degree to another, we are always to proportion the Number of Notices united, to the Strength and Capacity of the Mind; it is apparent that by ſuch a Procedure, the Ideas will be thoroughly aſcertained in every Step, and however large and bulky, lie yet fairly within our Graſp. This obviouſly accounts for that wonderful Clearneſs of Apprehenſion, which we often experience within ourſelves, even in regard to the moſt complicated Conceptions. For though the Multitude of Parts in many Caſes be great, I may ſay beyond Belief; yet as they have been all previouſly formed into ſeparate Claſſes, and the Claſſes themſelves diſtinctly ſettled in the Underſtanding;



g; we find it eaſy by ſuch a Series of Steps, to riſe to
a how complex ſoever, and with a ſingle Glance of
it embrace it in its full Extent.

II. BUT it is not enough that we barely
leas in our own Minds: We muſt alſo
e a Way to render them ſtable and per-
, that when they diſappear upon calling
Attention, we may know how to retrieve
gain with Certainty. This is beſt done by Words and
tions, which ſerve not only to ſubject them to our
eview, but alſo to lay them open to the Perception of
And indeed, as one of the main Ends of reducing
dge into the Form of a Science is, the eaſy and ad-
ous Communication of Truth; it ought always to be
: Care, when we ſet about unfolding our Diſcoveries,
it the ſeveral Conceptions to which they relate, in a
accurate Series of Definitions. For till we have di-
transferred our Ideas into the Underſtandings of thoſe
n we addreſs ourſelves, and taught their Connection
e appropriated Sounds, all our Reaſonings will evi-
be without Effect. If Men comprehend not the true
of our Words, and are therefore led by them to bring
Ideas into Compariſon, they can never ſure ſee Con-
and Habitudes, that really ſubſiſt not. But if on the
the Terms we uſe, excite thoſe very Perceptions in
which they denote in our own Minds; then, as the
Relations pointed out will lie fairly open to View, they
eeds be diſcerned with great Readineſs and Eaſe, and
e Character of Certainty upon all our Deductions.

And communicating them by means of Definitions.

THUS we ſee, that the *Method of Science*
with unfolding our Ideas, and communi-
em by means of Definitions. And here
great Importance to obſerve, that there
in all Languages, certain Original and Ele-
Names, whence our Deſcriptions take
t riſe, and beyond which we cannot
e Meaning and Signification of Sounds. For ſince
y Definitions are made up of Words, if we ſuppoſe
primitive and fundamental Terms, into which they
ve themſelves, and where they at laſt neceſſarily ter-
it is evident there would be no End of explaining.
: is peculiar to our ſimple Ideas, that they can-
ginally be excited by Words, but muſt always
eir firſt Entrance into the Underſtanding, by the ac-
eration of Objects upon it. When therefore in a
f Definitions, we arrive at the Names of theſe Ideas,
a we can *puſh* our Deſcriptions no farther, but

The Names of ſimple Ideas conſtitute the original and elementary Terms of Language.

are

are neceſſitated to ſuppoſe, that the Perceptions themſelves have already found Admiſſion into the Mind. If they have not, Definitions avail nothing; nor can they any other way be impreſſed upon us, than by betaking ourſelves to the ſeveral Objects in which the Power of producing them reſides. Hence it appears, that the primary Articles of Speech, into which the Whole of Language may be ultimately reſolved, are no other than the Names of ſimple Ideas. Theſe we ſee admit not Definitions. It is by Experience and Obſervation that we grow acquainted with their Meaning, and furniſh ourſelves with the Perceptions they ſerve to denote. For finding that thoſe, in whoſe Society we live, make uſe of certain articulate Sounds, to mark the various Impreſſions of Objects, we too annex theſe Sounds to the ſame Impreſſions, and thus come to underſtand the Import of their Words. This Way of Knowledge takes place, in regard to all our ſimple Ideas; but in many of thoſe that are complex, as they are the mere Creatures of the Underſtanding, and exiſt no where out of the Mind, there are of courſe no real Objects without us, whence they may be originally obtained. If therefore they could not be communicated by Deſcriptions, we ſhould be left wholly without the Means of tranſferring them into the Minds of others. But happily it ſo falls out, that all complex Conceptions whatſoever, may be diſtinctly exhibited in Definitions. For as they are no more than different Combinations of ſimple Ideas, if theſe ſimple Ideas have already got Admiſſion into the Underſtanding, and the Names ſerving to expreſs them are known; it will be eaſy, by deſcribing the Order, Number, and peculiar Connection of the Notices combined, to raiſe in the Mind of another the complex Notion reſulting from them.

A Knowledge of Ideas previous to ſuppoſed in handling any Subject ſcientifically.

XX. SINCE then it is by ſimple Ideas and their Names, that we unfold all the other Conceptions of the Mind; it manifeſtly follows, that in handling any Subject *ſcientifically*, we muſt always ſuppoſe thoſe to whom we addreſs ourſelves, previouſly furniſhed by Experience, with theſe firſt Principles and Elements of Knowledge. Nor is this by any means an unreaſonable *Poſtulatum*: Becauſe the ſimple Ideas that relate to the Sciences, being few in Number, and coming very often in our Way, it is hardly poſſible we ſhould be unacquainted with them, or not have frequently heard their Names in converſe with others. What principally demands our Care is, to apply thoſe Names aright, and according to the ſtrict Uſe and Propriety of the Language in which we write. 'Tis ſeldom allowable to change the Signification of Words, eſpecially thoſe by which we denote ſimple Ideas. If however ſuch a Liberty ſhould at any time be found neceſſary, we may ſtill make ourſelves underſtood, by mentioning the Idea under its common Name, and ſignifying its Connection with the newly-appropriated Sound. Indeed it ſometimes happens, that new and unuſual Ideas of this Kind, are to be taken under Conſideration, which we muſt therefore expreſs by Terms of our own Invention. In this caſe, *as the Ideas* themſelves cannot be laid open by Definitions, we refer *to the ſeveral* Objects whence they may be obtained; which tho' it

excites not the Perceptions immediately, yet ſufficiently anſwers our Purpoſe, by putting Men in a Way of being furniſhed with them at pleaſure.

The Order and Connection of our Definitions.

XXI. THIS Foundation being laid, the Communication of our complex Conceptions by Definitions, becomes both eaſy and certain. For ſince the Ideas themſelves are formed into different Orders, and theſe Orders ariſe continually one out of another; nothing more is required on our Part, than to obſerve a like Method and Gradation in our Deſcriptions. As therefore the firſt Order of our compound Notions, is formed immediately from ſimple Ideas; ſo the Terms appropriated to this Order, muſt be defined by the Names of theſe Ideas. And as the ſecond and all the ſucceeding Orders, ariſe continually out of thoſe Combinations, that conſtitute the Claſſes next below them; ſo the Definitions correſponding to theſe different Orders, gradually take in the Terms, by which the ſeveral inferior Diviſions are regularly and ſucceſſively expreſſed In ſuch a Series of Deſcriptions, it is evident at firſt ſight, that nothing can be obſcure and unintelligible. For as it begins with the Names of ſimple Ideas, whoſe Meaning is ſuppoſed to be known; and as in every Order of Definitions, ſuch Terms only occur, as have been previouſly explained in the preceding Diſtributions; by advancing regularly from one to another, we gradually furniſh ourſelves with whatever is neceſſary, towards a diſtinct Conception of all that is laid before us. Nor is it a ſmall Advantage attending this Diſpoſition, that the ſeveral Ideas deſcribed are hereby excited in the Underſtanding, in the very Order and Manner in which they are framed by a Mind, advancing uniformly from ſimple to the moſt complicated Notions. Hence we ſee diſtinctly the various Dependence of Things, and being put into that very Train of Thinking, which leads directly to Science and Certainty, are drawn inſenſibly to intereſt ourſelves in the Purſuit; inſomuch that while in fact we do no more than follow a Guide and Conductor, we can yet hardly forbear fancying ourſelves engaged in the actual Exerciſe of deducing one Part of Knowledge from another.

Of the immediate and remote Relations of our Ideas.

XXII. WHEN we have thus fixed and aſcertained our Ideas, and diſtinctly exhibited them in Definitions, we then enter upon the important Taſk, of tracing their ſeveral Habitudes and Relations. In order to this we ſet about comparing them among themſelves, and viewing them in all the Variety of Lights, by which we can hope to arrive at a Diſcovery of their mutual Agreement or Diſagreement. And here it happens, that ſome Relations forwardly offer themſelves to the Notice of the Underſtanding, and become the neceſſary Objects of Perception, upon the very firſt Application of our Ideas one to another. Thoſe are therefore immediately owned, and conſtitute our *primary* and *intuitive* Judgments, being attended with the higheſt Degree of Evidence, and producing abſolute Certainty in the Mind. But in many Caſes, the Connection or Repugnance between our Ideas, even when true and real, comes *not yet within our immediate* View, but requires Search and Examination *to diſcover it.* On this Occaſion we have recourſe to inter-

intermediate Notices, and if by means of them we can muſter up a Train of evident and known Truths, which diſpoſed in a regular Series of Argumentation, lead at laſt to a Concluſion expreſſing the Relation we are in queſt of, the Proof thence ariſing is called *Demonſtration*. Now as the Conviction attending *Demonſtration*, is no leſs neceſſary and unavoidable, than that which proceeds from *Intuition*; it evidently follows, that whether the Relations between our Ideas are immediately diſcerned by the Mind, or whether they are traced by means of intervening Perceptions, in either Caſe we arrive at *Science* and Certainty. This however is particularly to be obſerved, that the more remote and diſtant Reſpects, being deduced from ſuch as are obvious and ſelf-evident, the Propoſitions expreſſing theſe laſt demand our firſt Notice, and ought to be previouſly eſtabliſhed, before we enter upon higher Inveſtigations. When therefore in the *Method of Science*, we have finiſhed the Buſineſs of Definitions; it muſt be our next Care, diſtinctly to unfold in Propoſitions, thoſe immediate and intuitive Relations, which are neceſſarily ſeen and owned by the Mind, upon the very firſt comparing of our Ideas one with another. Theſe Propoſitions have obtained the Name of *firſt Principles*, becauſe occurring *firſt* in the Order of Knowledge, and being manifeſt of themſelves, they ſuppoſe not any *prior* Truths in the Mind, whence they may be evidenced and explained. It is not needful to enlarge here, upon the Neceſſity of Circumſpection and Care, in eſtabliſhing theſe primitive and fundamental Perceptions. For ſince the whole Superſtructure of our Knowledge reſts ultimately upon them, it is evident at firſt, that a Miſtake in this Caſe, muſt at once overturn and annihilate all our future Reaſonings. But having already explained the Nature of theſe Propoſitions in the ſecond Book, unfolded the Notion of Self-evidence, and taught the Manner of diſtinguiſhing between the Truths of this Claſs, and thoſe that are demonſtrable; we ſhall for the preſent wave any farther Conſideration of this Subject, referring the Reader to what is there advanced, if he deſires fuller Information.

Of the Application of firſt Principles in demonſtrating ſuch as are remote and diſtant.

XXIII. The firſt and more immediate Relations of our Ideas being thus pointed out, our next Buſineſs is, to inveſtigate ſuch as are remote and diſtant. And here it is that we have occaſion for intermediate Notices, and a ſkilful Application of intuitive Truths. But though ſelf evident Propoſitions be the ultimate Foundation of our Reaſoning, we are not on that account to imagine, that the Art of improving Knowledge lies, in aſſembling at random a large and comprehenſive Stock of theſe. Even *General Principles* conſidered by themſelves, avail but little towards the Inveſtigation of Truth. They are indeed uſeful as *Media* of Certainty, by preſerving the Evidence of our Reaſonings diſtinct, which never fail to convince, if being purſued to their Source, they are found to reſolve themſelves into, and ultimately terminate in theſe Principles. But when we ſet about the *Encreaſe* and Enlargement of Science, far other Helps are required. For here the whole Secret conſiſts, in deviſing and ſingling out ſuch intermediate Ideas, as being compared with thoſe others whoſe Relations

we

we enquire after, may furniſh out a Train of obvious and known Truths, ſerving diſtinctly to inveſtigate the ſaid Relations. *Euclid* in the firſt Book of the *Elements* has demonſtrated, *that the three inward Angles of a Triangle taken together, are equal to two Right Angles.* The Reaſoning by which he eſtabliſhes that Propoſition, reſolves itſelf into this general Principle: *Things equal to one and the ſame Thing, are equal to one another.* Will any one however pretend to ſay, that a bare Conſideration of the Principle itſelf, led him to that Diſcovery? The mereſt Novice in Mathematics would, upon this Suppoſition, be equally qualified for the Buſineſs of Invention, with one that had made the greateſt Progreſs; inaſmuch as theſe general Principles of the Science, are commonly alike known to both. But the Truth of it is, *Euclid* having found out Angles, to which the three Angles of a Triangle, and two Right Angles, being compared, were found ſeverally equal; thereby aſcertained the Propoſition in queſtion, by ſhewing it to terminate in the above Axiom, tho' perhaps the Axiom itſelf was never once thought of during the whole Courſe of the Inveſtigation.

Reaſoning tho' reſolvable into general Truths, reſts immediately upon particular ſelf-evident Propoſitions.

XXIV. AND here it may not be improper to obſerve, that though it be uſual in Reaſoning, when we arrive at any particular ſelf-evident Propoſition, to refer to the general Axiom under which it is comprehended; yet is not this done out of abſolute Neceſſity, or for the Sake of any additional Confirmation. All intuitive Truths, whether general or particular, ſtanding upon the ſame Foundation of immediate Perception, are neceſſarily embraced for their own Sake, and require no mutual Illuſtration one from another. When therefore we have found, that the three Angles of a Triangle, and two Right Angles, are ſeverally equal to the Angles formed by one right Line ſtanding upon another, we thence immediately diſcern their Equality between themſelves, independent of the general Axiom into which this Truth may be reſolved. Nor do we in reality refer to that Axiom, by way of Evidence and Proof; but merely to ſhow the Coincidence of the Example under Notice, with a previouſly-eſtabliſhed general Principle. The ſame thing happens in all other Demonſtrations whatſoever, which terminating thus in particular ſelf-evident Truths, are therefore of themſelves ſufficient to Certainty, and acquire not any new Force, by being ultimately referred to general Maxims. This I mention here, to obviate a common Prejudice, whence many are led to imagine, that particular intuitive Propoſitions derive their Evidence from thoſe that are general, as being neceſſarily included in them. But ſince they both ſtand upon the ſame Foundation of Certainty, and are admitted in conſequence of immediate Perception, they have therefore an equal Claim to Self-evidence, and cannot be made plainer by any mutual Appeal.

Particular ſelf-evident Propoſitions ſo called here, in Oppoſition to general Principles.

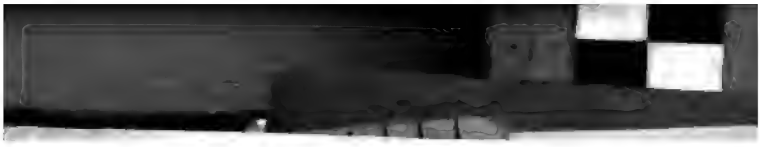
XXV. As however it is uſual in the Method of Science, to lay down certain general Principles, by way of Foundation for our future Reaſonings; ſome will perhaps object, that this ſeems to be a needleſs Precaution, *ſince Demonſtrations* muſt ſubſiſt without *them, and commonly terminate* in particular ſelf-evi*dent Truths, peculiarly* connected with the Subject under

under Conſideration. In order therefore to give a diſtinct Idea of the true Deſign of this previous Step, we ſhall begin with obſerving that by the particular Propoſitions in which Demonſtrations terminate, muſt not be underſtood ſuch as are ſo according to the ſtrict Definition of the Word, or in Oppoſition to Univerſals; but only confined and limited Truths, when compared with others that are more general. Thus the Propoſition, *Circles equal to one and the ſame Circle, are equal between themſelves*, is in Strictneſs and Propriety of Speech univerſal, becauſe the Subject is taken in its full Extent, and the Predicate agrees to all the Individuals comprehended under it. We here notwithſtanding conſider it as only a particular Truth, becauſe it is of a very limited Nature, when compared with the general Axiom mentioned above; *Things equal to one and the ſame Thing, are equal to one another*. For this not only extends to all the various Species of Figures, but takes in every Object without Exception, that comes under the Denomination of Quantity.

General Propoſitions are uſeful to contract the Bottom of our Reaſoning.

XXVI. THIS Point ſettled, it will eaſily appear, that the Method of premiſing general Principles in the Sciences, anſwers theſe two great and valuable Purpoſes. *Firſt*, to contract the Bottom of our Reaſoning, and bring it within ſuch Bounds, as are ſufficiently accommodated to the Capacity of the Mind. For Demonſtrations being carried on by means of intermediate Ideas, which muſt always have ſome peculiar Connection with the Matter in hand, the particular ſelf evident Propoſitions in which they terminate, are almoſt as various as the Subjects to which they relate. Thus in inveſtigating the Equality of different Objects, whether Angles, Triangles, Circles, Squares, &c. the intuitive Truths on which the Proofs reſt, always regard the particular Species, and may be therefore multiplied *in infinitum*, as well as the Species themſelves. But now it is remarkable, that all theſe ſeveral Truths, numerous as they may appear, are yet reducible to this one general Principle already mentioned; *Things equal to one and the ſame Thing, are equal to one another*. The ſame Obſervation will be found to hold, in other parts of human Knowledge; inſomuch that though the particular Truths on which we bottom our Reaſonings, are really innumerable; yet may they be all without exception reſolved into a very few general Maxims, and thereby brought readily within the Compaſs of the Underſtanding. When therefore we begin with premiſing theſe general Truths, and as we advance in Science, take care univerſally to reſolve our Demonſtrations into them; this muſt needs add a wonderful Clearneſs and Perſpicuity to our Reaſoning, and by eſtabliſhing them upon a Foundation previouſly admitted, and of whoſe Strength and Firmneſs we are abundantly ſatisfied, give them that irreſiſtible Force and Influence, which ſerves to produce abſolute Certainty. Nor can we poſſibly imagine any thing more elegant and beautiful, than thus to behold Knowledge riſing from a firm and fathomable Root, bearing its Head aloft, and ſpreading forth into innumerable Branches of Science; which tho' variouſly implicated and entangled, and ſtretching to a vaſt Extent, yet by their Union in one common Stock, derive thence ſo ſure and ſtaple a Support, that all the Aſſaults of Cavil and Scepticiſm, are not able to deſtroy or looſen their Connection.

XXVII.



XXVII. BUT *Secondly*, another Purpoſe ſerved by general Principles is, that they enable us with leſs Fatigue and Labour, and leſs Hazard of Miſcarriage, to ſatisfy ourſelves as to the Juſtneſs of thoſe Reaſonings, by which Science is eſtabliſhed. For ſince Demonſtrations when purſued to their Source, terminate always in particular intuitive Truths, which are therefore the ultimate Foundation of Certainty; it greatly imports us to beware, that we receive not any Propoſitions under this Name, until we have diſtinctly ſettled them in our own Minds, and attained a full and clear Perception of that Self-evidence, on account of which they are admitted without Proof. But now theſe Propoſitions being many in Number, and differing according to the Nature of the Subject about which our Reſearches are employed; it muſt greatly perplex and retard our Reaſonings, were we to check ourſelves every time they occur, in order to examine them by the Rules of firſt Principles. Nor is it a Matter of ſlight Conſideration, that in the Heat and Hurry of demonſtrating, while the Mind is advancing eagerly from one Diſcovery to the other, we ſhould be often tempted to paſs them over haſtily, and without that Attention their Importance requires; which muſt expoſe us to many Errors and Miſtakes. Theſe Inconveniences are effectually prevented, by the Method of premiſing general Truths: Becauſe upon referring particular Propoſitions to them; as the Connection is obvious at firſt ſight, and cannot poſſibly eſcape our Notice, the Evidence is diſcerned to be the very ſame, with that of the Principles to which they belong. And thus by a bare Reference, without the Trouble of particular Examinations, the Grounds of Reaſoning are aſcertained, and our Demonſtrations found ultimately to reſt on Maxims previouſly eſtabliſhed.

Secondly, to ascertain the Juſtneſs of Proofs with more Eaſe, and leſs Hazard of Miſcarriage.

XXVIII. HAVING explained the Uſe of general Principles, ſhewn them to be the great *Media* of Certainty, and found, that in order to enlarge the Bounds of Science, we muſt have recourſe to intermediate Ideas, as by means of them we are furniſhed with the ſeveral previous Truths, of which Reaſoning conſiſts: It now remains that we enquire, in what manner theſe Truths are to be diſpoſed and linked together, towards the forming of juſt and legitimate *Demonſtrations*. We have ſeen already in the preceding Book, that *Syllogiſms* drawn up according to the Rules there eſtabliſhed, lead to a certain and infallible Concluſion. If therefore evident and allowed Truths, are diſpoſed in a *ſyllogiſtic* Order, ſo as to offer a regular Concluſion, that Concluſion is neceſſarily true and valid. And ſince in every genuine Syllogiſm, if the Premiſſes are true, the Concluſion muſt needs be true; it manifeſtly follows, that the Concluſion already gained, being now a known and eſtabliſhed Truth, may be admitted as one of the Premiſſes of any ſucceeding Syllogiſm, and thereby contribute towards the obtaining a new Concluſion. In this manner may Syllogiſms follow one another in Train, and lead to a ſucceſſive Diſcovery of Truth; Care being always taken, that the Premiſſes in every

Of the Manner of linking Propoſitions together in order to the forming of legitimate Demonſtrations.

every Step, are either ſelf-evident Propoſitions, or Concluſions previouſly eſtabliſhed. And indeed the whole Art of *demonſtrating* lies, in this due and orderly Combination of our Syllogiſms. For as by this means all the ſeveral Premiſſes made uſe of are manifeſtly true, all the ſeveral Concluſions muſt be ſo too, and conſequently the very laſt Concluſion of the Series, which is therefore ſaid to be *demonſtrated*. The ſame Order is to be obſerved in the Diſpoſition of the Demonſtrations themſelves. That is, thoſe Propoſitions are always firſt to be demonſtrated, which furniſh Principles of Reaſoning in others; it being upon the Certainty of the Principles made uſe of, that the Certainty of the Truths deduced from them depends. And ſince even the different Branches and Diviſions of Science, have a near Connection among themſelves, inſomuch that the Knowledge of one, is often pre-ſuppoſed in another; great Care muſt be taken to adjuſt the ſeveral Parts with an Eye to this Dependence, that thoſe may always come firſt in Order, whence the *Poſtulata* of Demonſtration in others are borrowed.

What the Method here explained is called the Method of Science.

XXIX. In this Way of putting together our Thoughts, it is evident at firſt ſight, that however far we carry our Reſearches, *Science* and *Certainty* will ſtill attend us. But what is particularly elegant and happy in the Method now explained: we hereby ſee Knowledge riſing out of its firſt Elements, and diſcern diſtinctly how thoſe Elements are combined and interwoven, in order to the erecting a goodly Structure of Truth. *Experience* furniſhes us with ſimple Ideas and their Names, which are the *primary* Materials of Thinking and Communication. *Definitions* teach how to unite and bind theſe Ideas together, ſo as to form them into complex Notions of various Orders and Degrees. The *general Principles* premiſed in Science, exhibit to the Underſtanding ſuch intuitive and fundamental Truths, as expreſs the immediate Relations between our Ideas, and conſtitute the ultimate Ground of Certainty. *Demonſtrations* link known and eſtabliſhed Truths together in ſuch manner, that they neceſſarily lead to others which are unknown and remote. In fine, the duly adjuſting the ſeveral Branches of Science, and the Demonſtrations in every Branch, lays Knowledge ſo open to the Mind, that we ſee the Parts of it growing one out of another, and embrace them with full Conviction and Aſſurance. Thus we are gradually led from ſimple Ideas, thro' all the Windings and Labyrinths of Truth, until we at length reach the higheſt and moſt exalted Diſcoveries of human Reaſon. It is true the Method here laid down, hath hitherto been obſerved ſtrictly, only among Mathematicians; and is therefore by many thought, to be peculiar to Number and Magnitude. But it appears evidently from what we have ſaid above, that it may be equally applied in all ſuch other Parts of Knowledge, as regard the abſtract Ideas of the Mind, and the Relations ſubſiſting between them. And ſince wherever it is applied, it neceſſarily begets *Science* and *Certainty*, we have hence choſen to denominate it the *Method of Science*, the better to intimate its true Nature and Extent.

ON

ON

ıTURAL HISTORY.

I Come now to give you a ſmall Taſte of ſome of the moſt eaſy and pleaſant Parts of Natural Hi- This Science conſiſts in contemplating the Works l, and gaining ſuch a Knowledge of them, as the ſs and Imperfection of our Faculties will permit: e Uſe of it is to teach us to admire and adore the ı, Power, and Goodneſs of the great Creator. I : at preſent enter into a Conſideration of the Laws of and *Motion*, which make up the difficult Part of this ; but ſhall endeavour to give you ſuch an eaſy and View of the World, as may excite your Curioſity, eeably inform your Mind, without puzzling your anding.

ır. You are very obliging, Sir; I long to know ſome- f this kind, and ſhall liſten to your Informations with eaſure.

. Whoever opens his Eyes and looks about him with : Attention, muſt perceive a beautiful Variety of Ob- at preſent themſelves to View, and ſeem to demand ice. In Summer, Meadows enamell'd with number- ıts and Flowers, affording rich Paſturage for Cattle; waving with different Kinds of Grain for the Uſe of Woods, Foreſts, Plains and Mountains, differently , and Ponds, Lakes, or winding Rivers, varying the ıg Scene. In Winter, the Foreſts naked, Nature as ſuſpending her productive Power; the Air ſevere and , the Earth frozen, the Waters rendered hard, and of bearing Men, Cattle and Carriages; the falling of cy Snow, and all the Circumſtances attending this ;orous Seaſon; every Particular deſerves our Conſide- and commands Enquiry. Look we out at Night, darkneſs covers and conceals the Beauties of our earthly we ſhall find this temporary Loſs made up to us by

thoſe numberleſs and glorious Stars that glitter in the magnificent Canopy hanging over us; and if the Moon ariſes, her mild and friendly Rays enlighten the ſilent Scene, and give a fainter Day. In ſhort, whatever the Seaſon of the Year, whether chearful Spring, warm Summer, rich Autumn, or cold Winter; whatever the Hour of the Day or Night, Things worthy our moſt ſerious Notice are at hand, Things which to know may truly be called Learning, and in the Study of which an intelligent Being may always employ his leiſure Hours with Pleaſure. But ſome Kind of Method is neceſſary, to lead the Mind at firſt into a proper Train of Enquiry. I will therefore proceed Step by Step, firſt explaining ſome of the moſt common Appearances of Nature, ſuch as Fire, Air, Water, Wind, Rain, Thunder, *&c.* then deſcending into the Bowels of the Earth, I will give you ſome Knowledge of Metals and Minerals; ſuch as Gold, Silver, Iron, Lead, with many other Phænomena, *&c.* then wandering o'er its Surface, we may take a View of the Vegetable World and all its Beauties, Trees, Plants, Fruits, Herbs and Flowers; thence naturally proceeding to the loweſt Degree of Animal Life, we will take a Voyage upon the World of Waters, and draw from Seas, and Lakes and Rivers, ſome of their moſt remarkable Inhabitants for our Inſpection: After which again returning to the Land, we may ſurvey the Inſects, Birds and Beaſts, which there inhabit; and laſtly, raiſe our Thoughts, and cloſe the Whole with ſome particular Enquiries into the Nature and Powers of Man.

CHAP. I.

Of ſome of the moſt common APPEARANCES *of* NATURE.

Of Fire. IT is difficult to ſay what is the real Nature and Eſſence of Fire, and the Enquiry would be too abſtruſe for your Comprehenſion; but ſome of its Properties and Effects may be readily deſcribed, and eaſily underſtood. One Effect, and that which moſt particularly diſtinguiſhes it, is Heat. Another is Motion, which it communicates to all Bodies; nay, ſome ſuppoſe, that all the Motion in Nature proceeds only from Fire, which reſides more

or leſs in all Bodies whatſoever, and that if this Fire could be extracted and taken quite away, all Nature would grow into one ſolid Body, hard and immoveable. Another Effect of Fire is, that it dilates all ſolid Bodies, and rarifies all fluids. It melts, calcines, or vitrifies, according to the Nature of the Body that is offered to its Power. It is thought by ſome to be the Cauſe of Light, but this is doubtful. It is certain there may be Fire without Light, as in a *Dutch* ſtove, which warms a Room without enlightening it; and there may be Light without Fire, as the Light of the Moon, which gives no Heat at all. In ſhort, the Air we breathe, the Water we drink, the Earth from whence we draw our Food, are all enlivened and rendered fit for the Uſe of Man by this warm Principle reſiding in them.

Of Air.

AIR is that thin tranſparent Fluid in which we live, and move, and breathe; and without which we cannot ſubſiſt. It ſurrounds this terraqueous globe to a certain Height, and is called its Atmoſphere, is carried along with it, and partakes of all its Motions both annual and diurnal. In this Atmoſphere the Clouds and Vapours which are exhaled from the Earth, are ſuſpended and float about. It is a compreſſible and dilatable Body; that is, it may be contracted to a ſmaller Space than it naturally fills, or extended to a larger, as may be proved by many Experiments. It is fitted by its Nature to penetrate and pervade other Bodies, by which means it animates and excites all Nature, and is one of the principal Cauſes of Vegetation. It is the Breath and Life of the whole Animal World, whether inhabiting the Air, the Earth, or the Waters. It would be tedious to reckon up all the Benefits of this uſeful and delicate Element; let it ſuffice, juſt to mention its wonderful Power in many uſeful Engines; its admirable Property of conveying Smells to our Noſe, Sounds to our Ears, and reflecting the Light of the heavenly Bodies to our Eyes; alſo its great Uſe and Excellence in contributing by many other Ways to the Life, the Health, the Pleaſure of all Mankind.

Of Water.

WATER is a clear ſimple Fluid, inherent more or leſs in all Matter whatſoever. There is not a Body in all Nature but what will yield Water. *Iſaac Newton* affirms, that all Birds, Beaſts, Fiſhes, Inſects, Trees, and Vegetables, with their ſeveral Parts, grow out of Water, watery Tinctures and Salts, and by Putrefaction, return again to watery Subſtances. Hartſhorn, after being

being kept forty Years, and turned ſo hard and dry, that being ſtruck againſt a Flint it will yield Sparks of Fire; yet put into a Veſſel and diſtilled, affords one eighth Part of its Quantity in Water. Dead Bones, after being dry'd 25 Years, will yield by Diſtillation half their Weight in Water. It is the moſt ſubtle and penetrating of all things except Fire; it will paſs thro' Pores ten times ſmaller than Air will do. Leather or a Bladder will contain Air, but Water eaſily finds its Way thro' them. Nay, it has been known to force its Way when ſufficiently preſſed, thro' a ſpherical Veſſel of Gold. *Thales* the *Mileſian*, and ſome other Philoſophers believe, that Water was the firſt Principle of all things; and ſome have thought that *Moſes* himſelf was of the ſame Opinion, ſince before any thing was created, he tells us, *The Spirit of God moved upon the Face of the Waters.* The Uſes of Water, beſides the Beauty it gives to the World in Seas, Rivers, Lakes, and Ponds, are many and various. It is perhaps the moſt pleaſant and healthful Drink in the World; as a Medicine, it is very efficacious in many Diſeaſes; and as a Bath, it conduces both to Health and Pleaſure. In fine, it is ſubſervient to human Life in many and various Ways, in all Fermentations, and in diſſolving all Bodies that we have occaſion to diſſolve. Alſo in the Motion of Mills, and many other Engines and Machines, its Powers are wonderful and ſurprizing.

Of Wind. WIND is a quick Motion of the Air flowing from one Point or Quarter of the Earth to another, of which, tho' various Conjectures have been made, the phyſical Cauſe is not yet known. The Winds are divided into, 1. *Perennial*, or ſuch as blow all the Year the ſame Way, of which the moſt remarkable is that betwixt the two Tropics, blowing conſtantly at Sea from Eaſt to Weſt, and called the general Trade-Wind. 2. *Periodical*, or thoſe which conſtantly return at certain Times. Such are the Sea and Land Breezes, which in the Evening blow from Sea to Land, and in the Morning from Land to Sea. Such alſo are the particular Trade-Winds, which blow from the North to the Equator in our Summer, and from the South Pole to the Equator in our Winter. 3. *Variable*, or ſuch as blow now one Way, and now another; are now high, now low, without any Regularity either as to Time or Place, which is the Caſe in moſt of the temperate Climates in the World. The Uſes of the Wind are many and great. It is the common Servant of Mankind. The whole Buſineſs of

of Navigation is performed by its Affiſtance. It is not only commiſſion'd to warm and cool us by turns, but alſo to keep our Habitations clean and wholſome, which Office it performs by carrying away inviſibly every thing that might infect and corrupt the Air, which if it was always at Reſt, and agitated by frequent Gales and Storms, inſtead of refreſhing and animating, would ſuffocate and poiſon all the World.

Of the Clouds, Rain, Hail, and Snow.

The CLOUDS are nothing but Vapours raiſed from the Waters, or from moiſt Parts of the Earth, partly by the ſolar, and partly by the ſubterraneous Heat; which Vapours being lighter than Air, mount upwards, till having reach'd ſuch Region of the Atmoſphere, as is of the ſame ſpecific Gravity with themſelves, they are there ſuſpended. After a while the watery Particles which were firſt too thin to be perceived, are ſo condenſed by the Cold of the ſuperior Regions, as to render them opaque enough to reflect the Light of the Sun, in which State they are called Clouds; and when their ſpecific Gravity is ſo increaſed as to make them deſcend, it is then called Rain. Theſe Clouds are formed in the Atmoſphere, at very different Heights from the Earth. When they are formed in the lower Regions of the Atmoſphere, the Rain which falls from them is very ſmall. When they are formed higher, the Bubbles falling within the Sphere of each others Attraction, incorporate as they fall, and become large Drops. If theſe Bubbles, in their Deſcent thro' the Atmoſphere, meet with a Region ſo cold as to freeze them, they condenſe into Flakes of Snow or Hail. The Uſes of the Clouds are manifold: *1ſt.* They afford a delightful and refreſhing Shade from the Heat of the Sun: *2dly*, They pour down thoſe fertile Dews and Showers on all the vegetable Tribe, to which they owe their Health, their Verdure, and their Beauty: And *3dly*, It is thought by many that the Fountains, Springs, and Rivers, which ſo beautifully adorn the Earth, and ſerve ſo many uſeful Purpoſes, derive their Origin from hence.

Of Thunder and Lightning.

THUNDER is that loud and rumbling Noiſe which is heard in the lower Regions of the Air, occaſioned by the ſudden kindling of ſulphurous Exhalations. For, as Sir *Iſaac Newton* obſerves, Vapours are raiſed into the Air, not only from Water, but alſo from Sulphur, Bitumen, volatile Salts, &c. there fermenting with nitrous Acids, they ſometimes take

Fire, and generate Thunder, Lightning, and other Meteors. If high in the Air, and far from us, they wi no Miſchief; but if near us, may deſtroy Trees, Animal Men: And the Nearneſs or Diſtance may be compute the Interval of Time betwixt the Flaſh and the Noiſe. *Wallis* obſerves, that commonly the Interval is about 7 conds, which at 1142 Feet in a Second, the Rate w Sound travels, gives the Diſtance about a Mile and a half; it is often nearer, and ſometimes farther off. The E of Lightning are ſometimes very ſurprizing; it has mel Sword without hurting the Scabbard, and broken the B of a Man without injuring his Fleſh, or even his Skin. Uſes may be to purge the Air, and purify the noxious pours which might otherwiſe grow pernicious.

Of Earthquakes.

An EARTHQUAKE is the greateſt and formidable Appearance of Nature. It is a v ment Shake or Agitation of that Part of Earth where it happens, accompanied wi prodigious Noiſe like Thunder, and frequently with E tions of Water, Fire, Smoke, or Wind, *&c.* The Cauſes that produce the Evaporation of Waters, and all Meteors that roll over our Heads, do alſo produce theſe no leſs dreadful Effects under our Feet. For the E abounding every where with Caverns, Veins and Canals, full of Water, others of Vapours and Exhalations, and n Parts of the Earth being replete with Nitre, Sulphur, men, Vitriol, and other Combuſtibles; theſe, either ſome Fire they meet with, or from their Colliſion ag hard Bodies, or their Intermixture with other Fluids, kindled, by which means burſting out into a greater C paſs, the Place becomes too narrow for them; ſo that ſing violently on all Sides, the adjoining Parts are ſhake Noiſe is heard like Thunder, which continues till they either found or made a Vent to diſcharge themſelves. this is an Appearance which you may probably never ſe being very uncommon in theſe Parts, I will give you ſon the Particulars of a very dreadful one which happened bet fifty and ſixty Years ago at *Jamaica*. In two Minutes it ſhook down and drowned 9 Tenths of the Town of *P Royal*. The Earth opening ſwallowed up People, ſom whom roſe in other Streets; moſt of the Houſes were thr down throughout the Iſland. One *Hopkins* had his Pla tion removed half a Mile from its Place. The Water f the Wells flew out with a violent Motion; the Houſes

one Side of the Street were ſwallowed up, on the other they were thrown on Heaps; and the Sand in the Street roſe like Waves in the Sea, lifting up every Body that ſtood on it; then immediately dropping down into Pits, and a Flood of Water breaking in, they were rolled over and over. The Ships and Sloops in the Harbour were overſet and loſt; the *Swan* Frigate in particular, by the Motion of the Sea and the ſinking of the Harbour, was driven over the Tops of ſeveral Houſes. In many Places the Earth would crack, and open and ſhut with a quick Motion, of which Openings two or three hundred might be ſeen at a time; in ſome of which the People were ſwallowed up, others the cloſing Earth caught by the Middle and preſſed to Death, in others their Heads only appeared. The larger Openings ſwallowed up Houſes, and out of ſome iſſued Rivers of Water ſpouting up to a great Height in the Air. The whole was accompanied with Stenches and offenſive Smells, the Noiſe of falling Mountains at a Diſtance, a rumbling under the Earth like Thunder, and the Sky in a Minute's time turn'd dull and rediſh like a glowing Oven.

Of the Tides.

The TIDES are that Flux and Reflux, or Ebb and Flow of the Sea, which is obſerved to happen nearly twice every Day. It flows from South to North for ſomething more than ſix Hours, during which Time it gradually ſwells, ſo that entering the Mouths of Rivers, it drives back their Waters towards their Heads or Springs; then ſeeming to reſt for about 10 Minutes, it begins to ebb and retire back again from North to South, for ſix Hours more; and the Waters ſinking, the Rivers reſume their natural Courſe. Then after a Pauſe of 10 Minutes more, the Sea begins to flow as before, and ſo alternately. The Period of a Flux and Reflux is 12 Hours 25 Minutes; ſo that the Tides return later and later every Day by 50 Minutes. Now 24 Hours and 50 Minutes is a lunar Day, that is, the Moon paſſes the Earth's Meridian later and later every Day by 50 Minutes. So that the Sea flows as often as the Moon paſſes the Meridian, both under the Arch above the Horizon, and that below; and ebbs as often as ſhe paſſes the Horizon, both at the Eaſtern and Weſtern Points; that is, both at the riſing and the ſetting of it. When the Moon enters the firſt and third Quarter, that is, at new and full Moon, the Tides are high and ſwift, and called *Spring-Tides*: When ſhe enters the ſecond and laſt Quarter, the Tides are weaker, and called *Neap-Tides*. All

theſe Phænomena of the Tides are accounted for from the Principles of Gravitation. But it is yet too ſoon for you to enter on ſuch abſtruſe and difficult Speculations. Let it ſuffice at preſent, that I give you only ſuch a Taſte of theſe things, as not to leave you quite ignorant of them, or juſt ſufficient to excite your Curioſity to enquire farther concerning them, if at any time hereafter you ſhould find an Inclination. I will now, according to my Promiſe, and in purſuance of the Method I propoſed, conduct you down into the Depths and Caverns of the Earth, and ſhow you ſome of the moſt remarkable and uſeful Phænomena which are there to be found.

CHAP. II.

Of METALS.

OF Metals there are ſix Kinds, *viz.* Gold, Silver, Copper, Iron, Lead, and Tin; to which ſome add Mercury as a ſeventh. The Philoſophers both ancient and modern, hold various Opinions concerning the Origin and Formation of Metals. Some will have them, like Plants, derive their Origin from Seeds Some think they are generated by a ſubterranean Fire. And ſome are of Opinion they are produced from Mercury, Sulphur and Salt; and that they take their Matter and Weight from the Mercury, and their Tincture and Form from the Sulphur. But theſe are Enquiries which I will not puzzle you with, I will only give you a ſhort natural Hiſtory of each of them.

Of Gold. GOLD is the heavieſt, pureſt, and moſt ductile of all Metals. It is chiefly found in Mines, tho' ſometimes Gold-duſt is found in the Sand and Mud of Rivers, particularly in *Guinea*. The golden Ore that is found in the Mines is generally about 150 or 160 Fathoms deep, and is dug up in large Pieces, which uſually contain ſome other mineral Matter, as Antimony, Vitriol, Sulphur, Copper, or Silver, particularly the laſt. The Manner of preparing and ſeparating it is thus; they firſt break the Ore with Iron Mallets pretty ſmall, then carry it to certain Mills, where it is ground to Powder, after which they paſs it thro' ſeveral Sieves till it is exceeding fine. The Powder thus prepared, they lay it in Troughs, mix with it a ſufficient

cient Quantity of Water and Mercury, and leave it in the Sun and Air for two or three Days, after which the coarſe and muddy Earth is driven out by other hot Waters, till nothing remains but a Maſs of Mercury and Gold, which are ſeparated by Diſtillation. The Gold in this State is called Virgin Gold, which they melt in Crucibles, and then caſt into Plates or Ingots. There are Gold Mines in moſt Countries in the World, though in *Europe* they are very ſparingly ſcattered. The Mines of *Peru* and *Chili* in *America* are the richeſt, though very fine Gold is found in ſome Parts of the *Eaſt-Indies*. The Weight of Gold is to that of Water nearly as 19 to 1; and to that of Silver near 2 to 1. The Pound Weight of Gold, or 12 Ounces *Troy*, is divided into 24 Carats. Of all the Properties of Gold, its Ductility is the moſt ſurprizing. A ſingle Ounce of Gold may be extended by the Gold-beater's Hammer to a Surface of near 150 ſquare Feet, and by the Gold Wire-drawers, it will be extended to upwards of a Thouſand, yet remain ſo entire, as that the leaſt Flaw ſhall not be perceived, even by the Help of a Microſcope.

SILVER is a white rich Metal, and, except Gold, the fineſt and moſt ductile of any. There are Silver Mines in all Parts of the World, but thoſe of *Peru*, and ſome other Parts of *America*, particularly thoſe of *Potoſi*, are by far the richeſt, and continue to yield the Ore in as much Plenty as when firſt diſcovered, with only this Difference, that the Veins which were then almoſt in the Surface of that famous Mountain, are now ſunk ſo deep, that the Workmen go down to them by a Deſcent of four or five hundred Steps. The Silver Ores when firſt dug are not all of the ſame Quality, Colour, or Value; ſome are white, or aſh-colour, ſpotted with red or blue; but the richeſt, and that which is eaſieſt wrought, is black; for the working of this nothing is requiſite but to put it in the Fire, where the Lead evaporating, leaves the Silver pure. But the Method of ſeparating Silver from the common Ore, is much the ſame as that of Gold, only that to every fifty hundred Weight of Ore, is added one hundred Weight of Rock-Salt. The Standard of fine Silver is 12 Penny Weights, each conſiſting of 24 Grains. *Of Silver.*

COPPER is a hard, dry, heavy, ductile Metal, abounding much in Vitriol, and an ill-digeſted Sulphur, and found in Mines in moſt Parts of *Europe*, *Of Copper.*

Europe, but particularly in *Sweden*. It is dug up in large Fragments of Ore, which are firſt beaten ſmall, then waſhed to ſeparate the coarſe and earthy Parts from it, then ſmelted and caſt in a kind of Molds to form large Blocks call'd Salmons, or Copper Cakes. This is the *ordinary* Copper. *Roſe Copper* is that which is melted once or twice more, and a Quantity of Tin and Antimony added to each Melting, to render it more beautiful. *Virgin Copper* is that which is ſometimes, but ſeldom, found pure in Mines. Certain Proportions of Copper and Lapis Calaminaris make Braſs. Certain Proportions of Copper and Tin make Bell Metal. Copper and Braſs melted in equal Quantities make a Bronze for Buſts and Statues; and and the Ruſt of Copper is Verdigreaſe.

Of Iron. IRON is a hard, dry, fuſible, and ductile Metal, conſiſting of Earth, Salt, and Sulphur, but all impure, ill-mixed, and ill-digeſted, which render it very liable to ruſt. By often heating it in the Fire, hammering it, and letting it cool of itſelf, it is ſoftened; by extinguiſhing it when hot in Water, it is hardened. There are a great Number of Iron Works in *England*, but the moſt conſiderable are thoſe in the Foreſt of *Dean* in *Glouceſterſhire*, where the Ore is found in great Abundance. The Proceſs of making Iron is as follows. Their firſt Work is to calcine the Ore, which is done in Kilns much like our common Lime-kilns, which they fill up to the Top with Coal and Ore intermixed, and ſetting fire to it at the Bottom, let it burn till the Coal is entirely conſumed. This is done without melting the Ore, and ſerves to conſume the more droſſy Part of it, and to make it malleable. After this they carry it to the Furnaces, where, in a furious Fire that for Months together is not ſuffered to ſlacken Night nor Day, it is melted and caſt into *Sows* or *Pigs* of Iron, as they are called; and laſtly, it is taken from the Furnace to the Forge, where thoſe Pigs are wrought into common Bars for uſe.

Of Lead. LEAD is a coarſe, heavy, ſoft Metal, containing a little Mercury, ſome Sulphur, and much bituminous Earth. It is found in many Countries, but is particularly plentiful in *England*. When the Ore is firſt dug out of the Mine, it is beaten ſmall, waſhed clean in a running Stream, and then ſifted. After which it is melted in a Furnace, with a ſtrong Charcoal Fire; as it melts, it runs through a Canal on one Side, leaving the Earth, Stones, and Droſs amongſt the Aſhes of the Coals; and the Work-

men with Iron Ladles take it out, and upon Sand caſt it into what Form they pleaſe, generally into what they call Pigs, about three hundred Pounds Weight a-piece. The Plummers caſt it into Sheets or Pipes for various Uſes.

Of Tin.

TIN is a whitiſh Metal, not ſo hard as Silver, nor ſo ſoft as Lead. The Stannaries or Tin Mines in *Cornwall* and *Devonſhire* furniſh the greateſt Part of the Tin that is conſumed in all *Europe*. The Manner of preparing it as related in the *Philoſophical Tranſactions* is thus. The Mineral Stone or Ore being dug and drawn out of the Mine, they break it in Pieces with large Iron Mallets; then bring it to a ſtamping Mill, where it is pounded with Stampers, much like thoſe of Paper-Mills; and the Water paſſing through it waſhes away the earthy Parts, and leaves the metallic ones behind. This done, they lay it on Iron Plates, dry it in a Furnace, and grind it very fine in a craſing Mill; then waſh it and dry it again. In this ſtate it is called black Tin: To reduce it to white Tin, its proper Colour, they carry it to a Furnace or Blowing Houſe, where by the Help of a fierce Charcoal Fire it is ſmelted. After it has paſſed all theſe Preparations, and is become cold, they forge it into Plates, which finiſhes the Proceſs. Six Pounds of Braſs, and fifteen Pounds of Lead, to an hundred Pounds of Tin, makes the Compoſition which is called Pewter.

Of Mercury.

MERCURY, or, as it is vulgarly call'd, *Quick-Silver*, is an imperfect Metal, neither ductile nor malleable, but a fluid Matter reſembling melted Silver. It is found chiefly in *Hungary*, *Spain*, *Friuli*, and *Peru*; the greateſt Part of what is us'd in *England*, is brought from the Mines of *Friuli*. Their Method of ſeparating it is, firſt to grind the Mineral Glebe or Ore into Powder, then pouring a great Quantity of Water upon it, they ſtir it about till the Water becomes thick; when pouring it off, they put on freſh, and ſo repeat their Work till the Water comes off clear; and now all that remains at the Bottom of the Veſſel is Mercury and other metalline Matter. With this they intermix the Droſs or Refuſe of Iron, and putting the whole into large Retorts, diſtil it; by which means all the heterogeneous, metallic, and ſtony Part is ſeparated, and the Mercury left pure. The chief Properties of Mercury are, that Gold excepted, it is the heavieſt of all Metals. It is alſo the moſt fluid of all Bodies; that is, its Parts cohere the leaſt to each other and are the moſt eaſily ſeparated.

ted. It is extremely volatile, being convertible into Fume by a very gentle Heat. It eaſily enters and cloſely adheres to Gold, leſs eaſily to Silver, with Difficulty to Copper, and to Iron not at all. The Weight of a Cubic Inch of each of theſe Metals, is as follows;

	Ounces.	Drachms.	Grains.
Gold	12	2	52
Mercury	8	6	8
Lead	7	3	30
Silver	6	5	28
Copper	5	6	36
Iron	5	1	24
Tin	4	6	17

There are many other Things contained in the Bowels of the Earth, of great Uſe in human Life. Such are the vaſt Quarries of Stone and Marble ſo uſeful in Building: Such are the Mines of *Coal* ſo neceſſary to human Life, particularly in theſe cold Countries, where only they are found: Such are the various Beds of Clay, which ſerve the Potter's Uſe, the Fuller's, or the Brickmaker's. But there are two which I ſhall more particularly obſerve before we leave theſe lower Regions, and thoſe are Diamonds and the Loadſtone.

of Diamonds. There are many Kinds of precious Stones, but the Diamond, by the Ancients called Adamant, is the moſt valuable of them all. Its Goodneſs conſiſts in its Water, or Colour, Luſtre, and Weight: and its Defects are Flaws, Veins, Specks of red or black Sand, and a bluiſh or yellowiſh Caſt. Diamonds are found only in the *Eaſt-Indies*, ſometimes in Mines, and ſometimes in the Sand of Rivers. It is the hardeſt of all Gems, inſomuch that it can only be cut and ground by itſelf, and its own Subſtance. The Manner of preparing them is firſt to rub them hard againſt each other, and the Duſt which is thus rubb'd off the Stones, ſerves to grind and poliſh them; and this is done by means of a Mill, which turns a Wheel of ſoft Iron ſprinkled over with Diamond Duſt mixed with Oil of Olives. The ſame Duſt, well ground, and diluted with Water and Vinegar, is uſed in the ſawing of Diamonds; which is performed with an Iron or Braſs Wire as fine as a Hair. There are many other precious Stones; and I will give you the Names and Colours of ſome of the Principal. The Ruby, which is next in Value and Eſteem to the Diamond, is of a crimſon Colour, ſomewhat

what inclining to Purple. The Garnet is ſomewhat like it, and perhaps of the ſame Species. The Hyacinth is ſometimes of a deep red, and ſometimes of a yellow Colour. The Amethyſt is of a bright Purple. The Emerald, a Graſs Green. The Beryl, a Sea or bluiſh Green. The Sapphire a Sky Blue. The Topaz or Chryſolite is of a gold Colour. Theſe are all tranſparent. Of Opake Stones, or ſuch as are only half tranſparent, the Cornelian is beſt; it is of a pale red, ſometimes bordering upon Orange. The Onyx is of a greyiſh Caſt. The Turquoiſe is betwixt blue and green. Lapis Lazuli is ſtudded with Spots of Gold on an azure Ground. But all theſe, with many others, might perhaps be ranked under the Claſſes of Agate and Jaſper: Only the Agate is a little more tranſparent, harder, and will take a finer Poliſh; but both the Agate and Jaſper vary their Colours extremely.

Of the Magnet or Loadſtone.

This wonderful Stone is uſually found in Iron Mines, and is produc'd in moſt Countries of the World, *China*, *Bengal*, *Arabia*, *Hungary*, *Germany*, and *England*. It is a heavy Stone, ſomething reſembling the Ore of Iron, only cloſer and more ponderous. It is endowed with ſome ſurprizing Qualities and Powers. It attracts Iron, which will adhere to it very ſtrongly; which Virtue it alſo communicates to the Iron ſo attracted. In every Magnet there are two Poles, one of which points Northwards, the other Southwards; and if the Magnet be divided into ever ſo many Pieces, the two Poles will be found in each Piece. It is this Property which has rendered it ſo uſeful in improving the Art of Navigation, for by the Help of a Needle properly touch'd on the Loadſtone, the Sailor directs the Courſe of his Ship to whatever Quarter of the World he pleaſes, the Property of pointing towards the North being communicated from the Stone to the Needle. But to give you a perfect Notion of this, it would be neceſſary to deſcribe and explain to you the Mariner's Compaſs, which as it would lead me ſomewhat out of the way, I ſhall at preſent decline. Thus you ſee the Bowels of the Earth may be conſidered as a Storehouſe, containing a Number of Things for the Uſe of Man; many of which it would have been very inconvenient to have put any where elſe: Here they are out of his Way, yet ready at his Hand. But we will now aſcend to the Surface of the Earth, and view the Wonders of the Vegetable World.

CHAP.

CHAP. III.

Of Trees, Plants, Herbs, and Flowers.

WHAT a delightful Verdure cloaths the Surface of this earthly Globe! How charming to the Senſe, how agreeable to the Imagination are its various Proſpects! Hills crown'd with Woods, and Vallies rich with Herbage; Fields waving with golden Crops of various Kinds of Grain, and Meadows enamell'd with a thouſand Herbs and Flowers. How beautiful are their Colours! How rich, how fragrant, how refreſhing the Odours which they breathe! How wonderful and ſurprizing to Reaſon are the Formation and Structure of their Parts! How uſeful and beneficial to the Life of Man their medicinal Virtues! *Manifold are the Works of God, in Wiſdom has he made them all!* The common Principle which animates this Part of his Works is Vegetation. I will firſt endeavour to give you ſome ſmall Knowledge of that, and then proceed to conſider a few of the Properties and Virtues of the particular Species. Every thing that grows upon the Face of the Earth, whether Tree, or Plant, or Herb, or Flower, is called a Vegetable; has Parts and Organs form'd for Generation and Growth, though not Senſation; and contains a kind of living Principle called Vegetation; the Buſineſs of which Principle is to concoct the indigeſted Earth, and Salts, and Water which aſcend through the Roots, and to aſſimilate them to the Nature of the Plant. Hence, though growing on the ſame Bed of Earth, and nouriſhed with the ſame Sun and Air and Water, yet one ſhall carry an oily, another a milky Juice in its Veins; one ſhall be of a yellow Colour, another of a red, and a third of a green, one ſhall yield an agreeable, another an offenſive Smell; one is ſweet to the Taſte, another bitter, another ſour; one is nouriſhing, another is poiſonous; one laxative, another aſtringent. It is generally thought among Naturaliſts, that Water is the principal Food of Vegetation, and perhaps it is; yet a due Mixture of Earth and Air is very neceſſary to the Health and Vigour of all Vegetables whatſoever. Some indeed require a greater Proportion of Earth, and ſome of Water, than others do. But pure Water unimpregnated with any terreſtrial Matter, if ſuch a Thing could be had, would nouriſh no Plant at all, neither on the contrary would dry Sand. *Boerhaave* defines a Vegetable to be a Body generated of the Earth, to which

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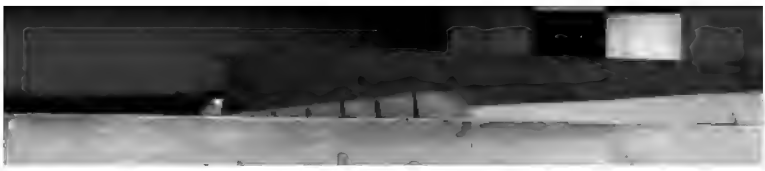
Oak
C. Mosley. Sc.



which it adheres, or is connected by Parts called Roots, thro' which it receives the Matter of its Nouriſhment and Increaſe; and conſiſts of Juices and Veſſels ſenſibly diſtinct from each other. The Proceſs of Nature in Vegetation is as follows. The Seed being committed to the Earth, and received into her Boſom, the warm Vapours thereof, joined with the Heat of the Sun, perform the Office of Incubation, diſpoſing the Seed to receive the vivifying Power. Now the Earth every where abounds with Veins and Channels, wherein the Dew and Rain-Water, impregnated with fertile Salts, glide like the Chyle and Blood in the Veins and Arteries of Animals; and this Moiſture meeting with a newly-depoſited Seed, is ſtrained through the Pores of the outer Rind, on the Inſide whereof lie one or two thick ſeminal Leaves, which conſiſt of a great Number of little Veſſels or Bladders, with a Tube, correſpondent to the Navel String in Animals; the Moiſture of the Earth, I ſay, thus ſtrained through the Rind of the Seed, makes a ſlight Fermentation with the proper Juices contained in it, which fermented Liquor is conveyed, by the aforeſaid umbilical Tube, to the Trunk of the little Plant, from thence to the Germ or Bud which is contiguous to it, upon which ſucceeds a Vegetation and Increaſe of the Parts. This, according to the beſt Naturaliſts, is the Procedure of Nature in the Vegetation of Plants. But the Writers on this Subject, ſuch as *Malpighi*, *Boerhaave*, *Hales*, *Miller*, and ſome others, will inform you farther, whenever you are diſpoſed to conſult them. I will now, according to my Promiſe, give you the Natural Hiſtory of five or ſix of the moſt remarkable Vegetables, and then proceed to the Conſideration of Animal Life.

Of the Oak.

The OAK is one of the largeſt and moſt uſeful of all Vegetables. It is the ſtrongeſt and moſt durable of all Timber; and will continue firm and ſound either in Air or Water longer than any other Wood. Hence the great Value of it to Ship-builders, Carpenters, and other Architects. It is produced from the Acorn, a ſmall Fruit which it bears, very uſeful in feeding Hogs, *&c.* and is ſaid by Naturaliſts to grow three hundred Years.

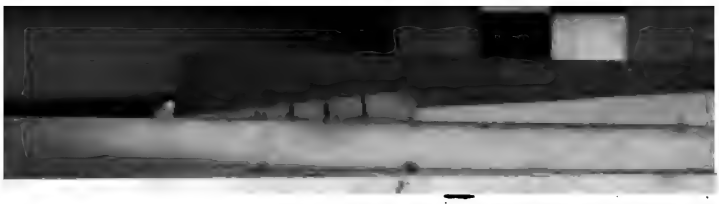
Of the Vine.

The VINE is a Plant or Shrub of the reptile Kind, ſupporting itſelf by creeping or climbing up any thing which ſtands near it. It is famous for its Fruit called Grapes, which it produces in Bunches, and from the Juice of which is made that dangerous Liquor,

which conſiſt of three wooden Rollers covered v
Plates, and are wrought either by Water, or V
Cattle, or Slaves. The Liquor, when the Canes a
and broke between the Rollers, runs through a lit
into the Sugar-Houſe, and is conveyed into a Copp
by a ſlow Fire, juſt to make it ſimmer, where it re
firſt Separation. With the Liquor is here mixed a
of Aſhes and quick Lime; the Effect of which
aſſiſted by the Action of Fire, is, that the unctuous
ſeparated from the reſt, and raiſed to the Top, ir
a thick Scum, which is conſtantly taken off with a
This done, it is farther purified in a ſecond, thir
and fifth Boiler, in which laſt it is brought to the C
of a Syrup. Then in a ſixth Boiler, the Syrup r
full Coction, and here all the Impurities left by tl
Lees are taken away by a new Lee, and a Water of
Allum is caſt into it. In this laſt Copper, there is fe
one Third of what was in the firſt, the reſt being
Scum. By thus paſſing a Number of Coppers,
Juice is purified, thickened, and rendered fit to be
into any kind of Sugar.

Of Hemp. HEMP is a Plant of great uſe in the Manufactures, furniſhing Thread, Clot age, *&c.* It is a tall ſlender Sort of Sl muſt be ſown afreſh every Year. Its Stem is h Leaves are of a roundiſh Form, and jagged at th and its Bark is a tiſſue of Fibres, joined by a ſoft Mat eaſily rots it. The Culture and Management of Hei a conſiderable Article in Agriculture, as there are m rations requiſite in manufacturing it. It is ſown ir ripe in *Auguſt*, and the way of gathering it is to pull the Roots; and tying it up in Bundles, they cut off in order to preſerve the Seed. Then laying the Water for five or ſix Days to rot, they take it out, d beat the Hex or woody Part from the Bark, with ſe of wooden Beetles: afterwards paſſing it through which is a toothed Inſtrument reſembling a Woo Comb, it becomes fit to ſpin into Thread, weave ir or twiſt into Cordage, according to its different Finen

N. B. Flax is very much a-kin to Hemp both in and Culture, only Flax is finer and whiter, and a noble Manufacture of Linen Cloth.



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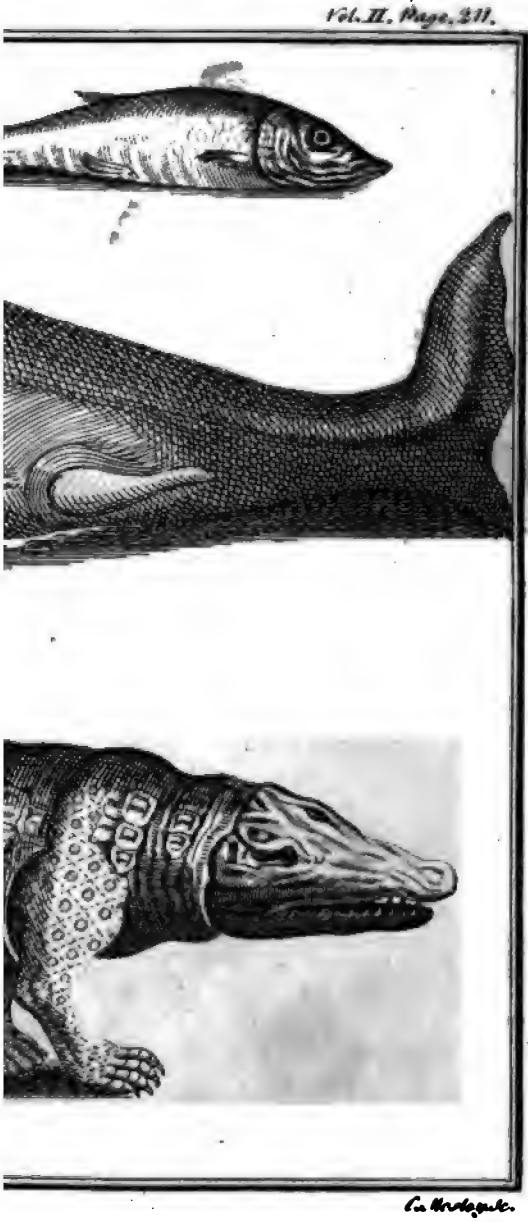


Co. Hodgetts.

CHAP. IV.

Of FISH.

WE will now make a Voyage upon the World of Waters, and conſider the Inhabitants which people this liquid ent. How wonderfully the Hand of Almighty Wiſdom ›rmed and adapted them to the Place of their Abode! An glutinous Matter ſpreads itſelf all over their Bodies, ı not only enables them to glide more freely through the :r, but alſo prevents it from penetrating their Skin, and ng them with Cold. They are furniſhed with Fins, ı ballance and keep them upright; with a ſurprizing gth and Motion in their Tails, which ſerve to row them rd with great Swiftneſs; and with a Bladder of Air, by acting of which they ſink to the Bottom, or by dilating it › the Top at pleaſure. The Center of Gravity is placed : fitteſt Part of the Body for ſwimming, and their Shape : moſt commodious for making way through the Water. have Gills, by which they reſpire as Land Animals do :ir Lungs, and their Eyes are formed in a peculiar man- :orreſpondent to the Element in which they live. Fiſhes ſually conſidered as Sea or Salt-Water Fiſh; River, eſh-Water Fiſh; and Pond, or Lake Fiſh. They are liſtinguiſhed into *cetaceous*, *cartilaginous*, and *ſpinous*. *cetaceous* Kind have Lungs, and breathe like Animals, ›nceive and bring forth their Young like them, which afterwards ſuckle with their Milk. The *cartilaginous* ıe with Gills, and are produced from Eggs, like Birds. *ſpinous* are provided with ſmall ſharp Bones to ſupport rengthen their Muſcles, and are generally produced from ı. I will give you the Natural Hiſtory of two or three moſt remarkable Fiſhes, and then proceed to the Con- ion of Inſects.

all the Inhabitants of the Water, the .LE is the largeſt, particularly thoſe found North Seas, which are ſome of them 200 in Length, and of a Bulk proportionable. ead is about one third Part of its whole Length, on 'op of which is what they call the Hovil or Bump, ich are two Spout-Holes, from whence, either in Sport ıen wounded, he throws the Water with ſuch Force, *Of the Whale.*

that it roars like a hollow Wind, or the Sea in a Storm, and may be heard at the diſtance of a League. His Eyes are not much bigger than thoſe of an Ox, and placed near the Corner of his Mouth. The Fleſh is coarſe, hard, and lean, the Fat lying only between the Fleſh and Skin. That which we call the Whalebone, is found in the Mouth and Throat, in every Whale perhaps 500 Pieces, each 15 Feet long. They never have more than two young ones at a time, and how long they go with young is uncertain. The Drug called *Sperma Ceti*, is the Brain of the Whale refined and purified by ſeveral Meltings. The Whale Fiſhery is a Trade of vaſt Conſequence, employing upwards of 200 Veſſels every Year, the greateſt Part of which are *Dutch*, who for near 150 Years have engroſſed the greateſt Part of this valuable Trade to themſelves. All that the Fiſhermen concern themſelves with, is the Blubber or Fat, the Whalebone, and the Brain. The lean Part of the Carcaſs is left upon the Ice for the Bears, who are very fond of it. The Manner of taking them is with a Harpoon, or Harping-Iron, which is a large Iron Spear, or Javelin, five or ſix Feet long, with a triangular Point, barbed like an Arrow. This the Harponeer throws at the Head of the Whale with all his Force, a Line being faſtened to it, and if he is ſo lucky as to penetrate the Fleſh, immediately they let out the Line, and the Whale dives to the Bottom with great Swiftneſs. But coming up again for Breath, they wound him a-freſh, till growing faint with loſs of Blood, they at length venture ſo near him, as to thruſt a long Launce under his Gills into his Breaſt, which ſoon diſpatches him.

Of the Herring.

The HERRING is a ſocial Fiſh, generally ſwiming in large Shoals together. It is ſo well known, that a Deſcription of it is needleſs. It dies immediately upon being taken out of Water, from whence ariſes the Proverb, *As dead as a Herring*. The Herring Fiſhery is a very valuable Trade, engroſſed alſo by the *Dutch*, who employ near a thouſand Veſſels therein. They are found chiefly upon our own Coaſts in the North Sea; and the *Dutch* begin their Fiſhing the 24th of *June*. They are called Red or White Herrings, according to the different Manner in which they are cured. White or pickled Herrings are thus prepared. Immediately upon taking them out of the Sea, they are cut open, gutted, and waſhed in freſh Water; then put into a Tub of ſtrong Brine made with freſh Water and Sea Salt, where they are left for the Space of twelve or fifteen Hours;

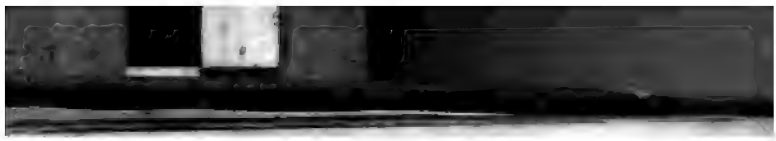
Hours; then they are taken out, well drained, and carefully put up in Barrels, preſs'd cloſe and laid even; a Layer of Salt is put up at the Bottom and Top of the Barrel, which is then ſtopped ſo cloſe that no Air can get in, nor Brine out, which would be very prejudicial to the Fiſh; and in this manner they are ſent all over *Europe*. The way of preparing Red Herrings is exactly the ſame, only they let them lie twice as long in the Brine, and when taken out they hang them up by the Head; about ten or twelve thouſand at a time in a kind of Chimney made on purpoſe, under which is made a ſmoaky Fire of Bruſh-wood, where they are ſmoaked and dry'd for about 24 Hours, and then barrelled up for uſe.

Of the Salmon.

Of all River-fiſh, the SALMON is chief, tho', whether it can properly be called a River-fiſh, or not, is doubtful; for they enter the Freſh Water about *February* or *March*, where they continue till *Autumn*, when they caſt their Spawn, and ſoon after return to the Sea. It is ſaid, by thoſe who are acquainted with theſe Fiſh, that the Salt Water beſt promotes their Growth; but that Freſh Water moſt contributes to make them fat. Its Agility in leaping over Weirs, or any other Obſtacles which oppoſe its Paſſage to or from the Sea, is ſurprizing; they have been obſerved to throw themſelves up Cataracts and Precipices many Yards high. And when it ſo happens, that their Paſſage is effectually intercepted, they ſoon grow lean and ſickly, and in a Year or two's time languiſh away and die.

Of the Tortoiſe or Turtle.

The TORTOISE is an amphibious Animal, living both by Land and Water. It is covered with an oval Shell, curiouſly clouded and marbled with various Colours, of which are made Snuff-boxes, Combs, *&c.* It is a dull, ſtupid Animal, its Brains being no bigger than a ſmall Bean, tho' its Head is almoſt as big as a Calf's. They feed upon Moſs, Graſs, or Sea-weed. They are produced from Eggs as big as thoſe of a Hen, only round as a Ball; of which they lay ſeveral Hundreds in a Seaſon, near the Shore of the Sea, covering them with Sand; and about twenty-five Days after laying, the Eggs are hatched by the Heat of the Sun; and the little Turtles being about as big as young Quails, run directly to the Sea. A Tortoiſe of a common Size, will yield about 200 Pound of Fleſh, which the Sailors preſerve with Salt; and near 300 Eggs, which will keep a conſiderable Time. Some part of the Fleſh is



white, and eats like Veal without any fiſhy Taſte; and other Parts are like Mutton and Beef.

Of the Crocodile.

The CROCODILE is alſo an amphibious Creature, capable of living either in the Water, or upon dry Land. The Place where they moſt abound is the River *Nile* in *Egypt*, but they are alſo found in ſome Parts of *India* and *Africa*. Their Form reſembles that of the Lizard; and they are of a yellow Colour like Saffron. They are produced from an Egg no larger than that of a Gooſe, of which the Female lays one every Day for about fifty Days, making firſt a Hole about two Feet deep in the Sand, and above the Overflow of the Tide, in which they depoſite them during the time of Incubation; and in about twenty-five or thirty Days they are hatched, and immediately run into the Water. From ſo ſmall a Beginning proceeds this monſtrous Serpent, the Size of which is from ten to fifteen Cubits in length, and they are ſaid to grow as long as they live, which is ſuppoſed to be about ſixty Years. It is a general Obſervation, and is affirmed by *Herodotus*, that the Crocodile has no Tongue; but Dr. *Pococke* aſſures us, that it has a fleſhy Subſtance like a Tongue, fixed all along to the lower Jaw, which may ſerve him to turn his Meat. He has two long Teeth at the End of his lower Jaw, and there are two Holes in the upper, into which theſe Teeth are directed; and when he opens or ſhuts his Mouth, he moves, contrary to all other Animals, only the upper Jaw. *Herodotus* and *Pliny* ſay, that they lie hid in Caves during the Winter Seaſon, and eat no Food; but Dr. *Pococke* affirms, that he ſaw them in great Abundance all the Month of *January*. The common Method of killing them is by ſhooting them into the Belly; for the Scales of their Back and Sides are ſo hard, that they are almoſt impenetrable even to a Bullet. They are a wily, cunning Creature, and it is ſaid, that when they ſee a ſingle Man, whom they are deſirous of drawing into their Clutches, they will weep and ſigh, and make moſt lamentable Moan, as if in the utmoſt Diſtreſs, till they have drawn him near enough for their Purpoſe, when ſuddenly ſpringing upon him, they beat him down with their Tails, and immediately deſtroy him.

This is beautifully deſcribed by our old Poet *Spenſer*, in that † Paſſage where he compares the dangerous Diſſimulation

† *Fairy Queen*, Book I. Cant. 5. Stanza 18.

tion and treacherous Tears of *Dueſſa* (or Falſhood) to the Crocodile.

As when a weary Traveller, that ſtrays
By muddy Shore of broad ſeven-mouthed Nile,
Unweeting of the perilous wand'ring Ways,
Doth meet a cruel crafty Crocodile,
Which in falſe Grief hiding his harmful Guile,
Doth weep full ſore, and ſheddeth tender Tears;
The fooliſh Man, that pities all the while
His mournful Plight, is ſwallow'd up unawares,
Forgetful of his own, that minds another's Cares.

It is hence, that hypocritical or affected Grief and Weeping, is by the common Proverb ſtyl'd, *Crocodile's Tears.*

There is alſo a ſpecious Sophiſm in Rhetoric, call'd a Crocodile, which Mr. *Chambers* in his Dictionary, ſays, had its Name from the following Occaſion, invented by the Poets. ———A poor Woman begging a Crocodile that had caught her Son walking by the River Side, to ſpare and reſtore him; was anſwer'd, That he would ſpare and reſtore him, provided ſhe would give a true Anſwer to the Queſtion he ſhould propoſe: The Queſtion was, *Will I reſtore thy Son or not?* To this the poor Woman, ſuſpecting a Deceit, ſorrowfully anſwered, *Thou wilt not:* And demanded to have him reſtored, becauſe ſhe had anſwered truly. Thou lyeſt, ſaid the Crocodile, for if I reſtore him, thou haſt not anſwered truly: I cannot therefore reſtore him without making thy Anſwer falſe.

CHAP. V.

Of INSECTS.

LET us now make an Inſpection into the minuter Part of the Creation, and conſider ſome of the various Tribes of Inſects which people the Earth and Air. But you will perhaps imagine, that there can be nothing worthy of Notice in ſuch ſmall and inſignificant Creatures. In order to take off this Objection, it may not be amiſs, before I proceed to give you an Account of any of the particular Species, juſt to ſhew you that the Hand of Providence is extended in a particular manner to the Care of theſe feeble Tribes; and that his

Wiſdom and Goodneſs are as conſpicuous in the Formation and Structure of their Bodies, and in the Beauty and Uſefulneſs of their different Parts, as in the largeſt and moſt conſiderable Animals.

If we conſider the vaſt Profuſion of Azure, Green, Vermilion, Gold, Silver, Diamonds, Fringe, and Plumage, that adorn their Robes, their Wings, their Heads, and Bodies; who can forbear to acknowledge the Bounty of their Creator? We muſt equally admire his Goodneſs, that has furniſhed them with Arms againſt the Aſſaults of their Enemies, as well as for their own Defence. Moſt of them are provided either with Teeth, a Saw, a Sting, or Claws; and a ſcaly Coat of Mail generally defends their whole Body. The Safety of moſt of them conſiſts in the Quickneſs of their Flight; ſome by the Help of their Wings, others by the Aſſiſtance of a Thread that ſupports them, by which, from the Leaves whereon they live, they ſuddenly drop themſelves to a ſufficient Diſtance from their Enemy; and others by the Spring of their hind Feet, whoſe Elaſticity darts them at once out of the reach of Injury. Who alſo can ſufficiently admire the infinite Wiſdom that appears in the Contrivance of the different Organs and Implements given them for their Support and Convenience in their different Occupations and Ways of Life? Thoſe who ſpin, have a Diſtaff and Fingers to form their Thread: Thoſe who weave Nets and Lawn, are provided with Clues of Thread and Shuttles fit for the Purpoſe. Some build in Wood, and are therefore ſupply'd with Bills proper for piercing it: Others make Wax, and have Shops furniſhed with Rakers, Ladles and Trowels. Some have their Heads armed with a Trunk, a Saw, a Pair of Pincers; and carry in the other Extremity of their Bodies an Augre, which they lengthen and turn at diſcretion, and by that means dig commodious Habitations for their Families in the Heart of Fruits, in the Leaves, or under the Bark of Trees, and frequently even in the hardeſt Wood. Others that have tender Eyes, have the Benefit of a couple of Horns to defend them, which as the Animal moves along, eſpecially in the dark, make trial of the Way, and diſcover by a quick and delicate Senſation, what would defile, drown, or endanger them. In ſhort, the Minuteneſs of theſe Creatures is ſo far from rendering them inſignificant, that on the contrary, their Mechaniſm is for that Reaſon the more aſtoniſhing. In Alluſion to which, the great Mr. *Boyle* us'd to ſay, that his Wonder dwelt not ſo much on Nature's *Clocks* as on her *Watches:* and as Mr. *Baker* † obſerves, "If

"we

† In his ingenious Book on Microſcopes.

" we compare the Structure of a Mite with that of an Ele-
" phant, we ſhall probably concur in the ſame Opinion.
" The Largeneſs and Strength of the one, may ſtrike us with
" Wonder and Terror; but we ſhall find ourſelves quite
" loſt in Amazement, if we attentively examine the ſeveral
" minute Parts of the other. For the Mite has more Limbs
" than the Elephant, each of which is furniſhed with Veins
" and Arteries, Nerves, Muſcles, Tendons, and Bones: It
" has Eyes, a Mouth, and a Proboſcis too (as well as the
" Elephant) to take in its Food; it has a Stomach to digeſt
" it, and Inteſtines to carry off what is not retained for Nou-
" riſhment. It has an Heart to propel the Circulation of the
" Blood, a Brain to ſupply Nerves every where, and Parts of
" Generation as perfect as the largeſt Animal. Let us now
" ſtop, ſays he, look back and conſider, as far as our Abilities
" can reach, the exceſſive Minuteneſs of all theſe Parts; and
" if we find them ſurprizing, and beyond our Ideas, what ſhall
" we ſay of thoſe many Species of Animalcules to whom a
" Mite, in Size, is as it were an Elephant?" Theſe general Reflections premiſed, I will now give you the natural Hiſtory of ſome particular Inſects, which I doubt not but you will think extremely ſurprizing.

Of the Bee.

The BEE is ſo well known, that I need not deſcribe it to you. I will therefore reduce all I have to ſay on this noble and uſeful Inſect to three Heads, *viz.* their Government, their Oeconomy, and their Manner of Working. That they are ſubject to Laws and Government, is aſſerted by all who have made Obſervations on them: And there is in every Hive a certain Bee of a larger Size than the reſt, which is looked upon by the Community as their Monarch, and obeyed with great Loyalty. Moſt Naturaliſts are now of Opinion that this ſovereign Bee is a Female, and the Mother of all the Hive; that thoſe we call Drones, which are larger and of a darker Colour than the common Bees, and of which there are not above 4 or 500 in each Hive, are Males, and that all the common working Bees are neither Male nor Female. Thoſe who are furniſhed with Glaſs Hives, have been enabled to make many curious Obſervations. They tell us, the Queen has her Apartments in the upper Part of the Hive; that when ſhe appears in Public, which is ſeldom, ſhe walks with a ſedate and majeſtic Air, and is attended by ſeveral large Bees, (probably the Drones or Males) who follow her with Reſpect, or form a Circle round her, and fluttering their Wings, ſeem mightily

mightily rejoiced to ſee her. That in any Calamity they take great Care of her; and if by any Misfortune they are deprived of her, they neglect all Buſineſs, as having no Proſpect of Poſterity to provide for, and either fly away at random, or languiſh and die.

As to their Oeconomy, all the Buſineſs of the Hive is carried on with the greateſt Diligence, and the moſt entire Union reigns throughout the whole Community. Their Habitations are in common; their Food and Proviſion in common; their Labours all in common; their Care of Poſterity in common; they ſympathize with one another in common Danger, and with the greateſt Courage and Reſolution fight for one another. They have no ſiniſter ſelfiſh Regards, no claſhing or inconſiſtent Intereſts; but are perfectly happy in their united Endeavours, which produce that Affluence and Plenty, that conſtitutes the Riches of the whole Society, and of every Individual. They are patient of Affronts when ſingle, and at a Diſtance from their Hives; but when within the Reach of Aſſiſtance from their Fellows, they will not be diſturbed in their Labours without reſenting it. They are all temperate and frugal, though in the midſt of Plenty; and amongſt themſelves ſtrictly juſt and honeſt, but apt to rob and plunder their Neighbours without Mercy, which frequently produces Wars and Tumults betwixt one Hive and another. Their Neatneſs is ſuch, that they will not ſuffer any thing offenſive to remain within their Hives; and if any thing diſagreeable is put in, that is too big for one Bee to remove, ſeveral of them will join their Forces, and drag it out of the Hive; and if it is too heavy for all their Efforts, they then cover it over with a kind of Glue, which prevents it from offending the Niceneſs of their Smell. With great Prudence and Sagacity they provide in Summer a ſufficient Store to ſupply their Wants in Winter; and when the Spring returns, and the young Bees are become able to provide for themſelves, and too numerous for the Hive to contain them, the old ones, in whom the Right of Sovereignty remains, ſend out a Colony or Swarm to ſhift for themſelves, and find another Habitation.

As to their Manner of Working, it is more aſtoniſhing than any other Part of their Hiſtory. When they begin to build the Combs, they divide themſelves into four Bands; the firſt of which is conſigned to the Fields, to collect Materials for the Structure, which chiefly conſiſt of the fine Duſt they gather from Flowers, and which mixed with a certain gluey Subſtance is made into Wax; the ſecond work upon theſe Materials,

Materials, and form them into a rough Sketch of the Dimenſions and Partitions of the Cells, which are built hexagonal, with the niceſt mathematical Exactneſs; the third examine and adjuſt the Angles, remove the ſuperfluous Wax, and poliſh and complete the Work; and the fourth are Waiters who ſerve theſe Labourers with Proviſion, during the Time their Work is in hand. And ſuch is their Diligence and Induſtry, that generally in a Fortnight's Time the whole Hive is filled with Combs. Many other curious Obſervations have been made on Bees, but theſe may be ſufficient to excite your Curioſity to make farther Enquiries as you advance in Knowledge.

Of the Ant.

Having given you this Account of the Laws and Cuſtoms of Bees, under the Influence and Government of a Monarch, it may not be amiſs to give you ſome Information of the Commonwealth of Ants, who are governed by Laws equally regular and wholſome, though without one. *Go to the Ant, thou Sluggard,* ſays *Solomon, conſider her Ways, and be wiſe, which having no Guide, Overſeer, or Ruler, yet provideth her Meat in the Summer, and gathereth her Food in the Harveſt.* The Inſide of an Ant-hill is a kind of oblong City, divided into various Streets, that terminate at different Magazines; ſome of the Ants conſolidate the Earth, and prevent its falling in, by incruſting it with a Surface of Glue; others amaſs ſeveral Splinters of Wood, which they draw over the Tops of their Streets, and uſe them as Rafters to ſuſtain the Roof, and acroſs theſe they lay another Rank of Splinters, and cover them with a Heap of Ruſhes, Graſs, and Straw, which they raiſe with a double Slope, to turn the Current of the Water from their Magazines, ſome of which are appropriated to receive their Proviſions, and in the others they depoſite their Eggs. Theſe Eggs produce *Maggots*, which after a time ſpin themſelves Coverings, become *Aurelias*, and then *Ants*. The Affection of the Parents for their Young in the Aurelia State is ſo ſtrong, that when Danger threatens, they inſtantly run away with them, and will ſooner die than leave them. To prevent the Corn which they provide in the Summer for their Support in Winter, from ſhooting or growing, they bite out the Germen or Bud before they lay it up; and that the Moiſture of the Earth may not occaſion it to ſwell and rot, they provide a dry Earth or Sand to lay it in, and when the Sun ſhines not, frequently bring it out of their Holes to dry and harden it. As to their Summer Proviſions, they take up with any

any thing that is eatable; you may ſee one loaded with the Kernel of ſome Fruit, another bending under the Weight of a dead Fly; and ſometimes ſeveral of them at work on a larger Subſtance, when what cannot be removed, they eat on the Spot, and carry Home all that is capable of being preſerved. But the whole Society is never permitted to make Excurſions at random; ſome are detached as Spies to get Intelligence, and according to the Tidings they bring, all the Community (except ſuch as are appointed to guard the City, and take care of their Young) are upon their March, either to attack a ripe Pear, a Cake of Sugar, or a Treaſure of Grain. And their Expedition to it, as well as their Return from it, is under ſome Regulation; the whole Band is ordered to aſſemble and move in the Tract; however, as they are a free People, theſe Injunctions are never executed with much Severity; if by Accident they ſpring a new Game in their Way, they are at liberty to leave the Tract, and ſeize upon it. Thus I have taught you ſome uſeful Truths relating to the Ants *Republic*, and the *Realm* of Bees;

How thoſe in common all their Wealth beſtow,
And Anarchy without Confuſion know;
And theſe for ever, though a Monarch reign,
Their ſeparate Cells and Properties maintain.

POPE.

Of the Silkworm.

The SILKWORM is produced from a ſmall Egg, not much bigger than a Muſtard-ſeed, is of a pale Aſh-colour, and feeds on Mulberry-leaves, or for the want of thoſe, on the Leaves of Lettuce. During its Continuance in this Form, it ſuffers four Sickneſſes, each laſting about three Days, wherein it feeds not at all, but grows thicker, ſhorter and clearer, and in each Sickneſs changes its Skin. Soon after this it begins to wind itſelf up into a ſilken Bag or Caſe, about the Size of a Pigeon's Egg, in which State it lies encloſed about fifteen or twenty Days without any Food, and ſeemingly without Life or Motion, and is then transformed into an Aurelia, or Chryſalis, and eating itſelf a Paſſage out of the End of its ſilken Sepulchre becomes a Moth, which is its laſt State, the State in which it lays Eggs and dies. Theſe Eggs are kept for about ten Months, till the proper Seaſon returns, which is the Beginning of *May*, and then they hatch of themſelves into Silkworms. Thoſe who keep theſe Inſects never ſuffer them to eat their Way out of their ſilken Habitation, be-

cauſe

cauſe that ſpoils their Work; but towards the End of their Continuance in that State, they wind the Silk from off them, and the encloſed Worm aſſumes its new State of a Moth, as well as if it had continued the whole Time in its ſilken Covering. The Quantity of Silk generally wound from one of theſe Balls or Caſes, is about 930 Yards; but ſo extremely fine is the Thread, that the Weight of it is not above two Grains and a half.

Of the Polype.

This wonderful Creature is but very lately diſcovered, and the Accounts of it are ſo extremely ſurprizing, that many People for a Time were doubtful of their Truth, and with great Difficulty gave Credit to them. It is a ſmall Inſect found in Ditches or watery Places; its Body is a kind of hollow Tube or Trunk, at the anterior End of which is placed ſeveral Arms, with which it ſeizes its Prey. It generally faſtens itſelf at the poſterior End to ſome Plant or Leaf, from which it depends and contracts or extends its Body and Arms at pleaſure. They are voracious Animals, and will ſwallow a Worm twice or thrice their own Length. If the Worm comes endways, it is ſwallowed in that manner, otherwiſe it goes down double, and makes ſeveral Foldings in the Stomach, which diſtends wonderfully for its Reception. The Worm ſoon dies there, and after it has been ſqueezed or ſucked, is voided by the Mouth. They produce their Young by a kind of Vegetation from the exterior Parts of their Bodies; it is common to ſee five or ſix growing at a Time, and when one drops off, another comes in its Place. But the moſt ſurprizing Part of the Hiſtory of this Inſect is, that cut it into what Parts you pleaſe, each Part becomes a complete Polype. If you cut it in two, the Head Part produces a Tail, and the Tail Part produces a Head and Arms, ſometimes in 24 Hours Space if the Weather is warm, but generally in two or three Days. If you cut it in three, the Head and Tail Parts produce as before, and the Middle produces both a Head and a Tail. If you cut it longways, through the Head, Stomach, and Body, each Part is half a Pipe, with half a Head, half a Mouth, and ſome of the Arms; the Edges of theſe half Pipes gradually round themſelves and unite, beginning at the Tail End, and the half Mouth and half Stomach of each becomes complete, and in a few Hours they will devour a Worm as long as themſelves. If you take a Polype, and turn it Inſide out as you would do a Stocking, the Outſide will become the in, and the

the Inſide will become the out, and the Creature will eat and live as well as ever.

Of the Tarantula.

The Account which Mr. *Chambers*, in his *Cyclopedia*, gives of the Tarantula, is ſo full and ſatisfactory, that I need give myſelf no farther Trouble, than barely to tranſcribe what he has collected. The Tarantula, ſays he, is a kind of Spider; denominated from the City of *Tarentum* in *Apulia*, where it is chiefly found: It is about the Size of an Acorn, and is furniſhed with eight Feet, and as many Eyes; its Colour various, but it is ſtill hairy; from its Mouth ariſe two Horns or Trunks, made a little crooked, with the Tips exceedingly ſharp, through which it conveys its Poiſon.

Theſe Horns, Mr. *Geoffroy* obſerves, are in continual Motion, eſpecially when the Animal is ſeeking for Food, whence he conjectures they may be a kind of moveable Noſtrils.

The Tarantula is found in ſeveral other Parts of *Italy*, and even in the Iſle of *Corſica*; but thoſe of *Apulia* alone are dangerous: even theſe, when removed thence, are ſaid to become harmleſs. It is added, that even in *Apulia*, none but thoſe found on the Plains are much to be feared, the Air being hotter there than on the Mountains. Mr. *Geoffroy* adds it as an Opinion of ſome, that the Tarantula is never venomous but in the Coupling Seaſon; and *Baglivi*, that it is never ſo but in the Heat of Summer, particularly in the Dog-days, when becoming enraged, it flies on all that paſs by.

The Bite occaſions a Pain, which at firſt appears much like that felt on the ſtinging of a Bee, or an Ant; in a few Hours the Patient feels a Numbneſs, and the Part affected becomes mark'd with a ſmall livid Circle, which ſoon after riſes into a very painful Tumour: a little longer, and he falls into a profound Sadneſs, breathes with much Difficulty, his Pulſe grows feeble, his Senſe fails; at length he loſes all Senſe and Motion, and dies unleſs relieved. But theſe Symptoms come ſomewhat differently, according to the Nature of the Tarantula, and the Diſpoſition of the Patient. An Averſion for Black and Blue; and, on the contrary, an Affection for White, Red, and Green, are other unaccountable Symptoms of this Diſeaſe.

All the Aſſiſtance Medicine has been able to diſcover by Reaſoning, conſiſts in ſome chirurgical Applications on the Wound, Cordials, and Sudorifics; but theſe are of little Efficacy:

Efficacy: a thing that avails infinitely more is, what Reaſon could never have thought of, Muſic.

As ſoon as the Patient has loſt his Senſe and Motion, a Muſician tries ſeveral Tunes on an Inſtrument, and when he has hit on that, the Tones and Modulations whereof agree to the Patient, he is immediately ſeen to make a faint Motion: his Fingers firſt begin to move in Cadence, then his Arms, then his Legs, by degrees his whole Body: at length he riſes on his Feet, and begins to dance, his Strength and Activity ſtill increaſing. Some will continue the Dance ſix Hours without Intermiſſion. After this he is put to Bed, and when he is judged ſufficiently recruited of his firſt Dance, he is called out of Bed by the ſame Tune, for a ſecond. This Exerciſe is continued for ſeveral Days, ſix or ſeven at moſt; in which Time the Patient finds himſelf exceedingly fatigued, and unable to dance any longer, which is the Characteriſtic of his being cured; for as long as the Poiſon acts on him he would dance, if one pleaſed, without any Diſcontinuation, till he died of the mere Loſs of Strength.

The Patient perceiving himſelf weary, begins to recover, and awakes as out of a profound Sleep, without any Remembrance of what paſſed in his Paroxiſm, not even of his Dance. Sometimes the Patient thus recovering from his firſt Acceſs, is quite cured; if he be not, he finds a melancholy Gloom hanging on him; he ſhuns the Sight of Men, and ſeeks Water, and if he be not carefully looked to, throws himſelf into ſome River. If he do not die, the Fit returns at that time twelvemonth, and he is driven to dancing again. Some have had theſe Returns regularly for twenty or thirty Years. Every *Tarantulus* has its particular and ſpecific Tune; but in the general, they are all very briſk, ſprightly Tunes, that work Cure.

This Account was given to the Royal Academy of Sciences by Mr. *Geoffroy*, at his Return from *Italy* in 1702, and confirmed by Letters from *F. Gouye*. The like Hiſtory is given us by *Baglivi*, in an expreſs Diſſertation on the Tarantula, publiſhed in 1696.

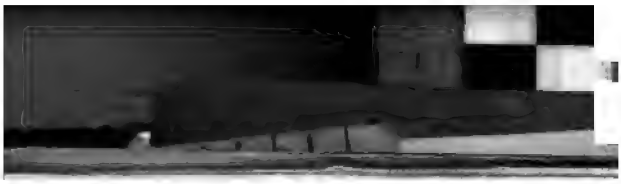
There are many other Wonders amongſt theſe minute Creatures, which will afford you infinite Matter of Speculation and Amuſement, whenever you ſhall be diſpoſed to make farther Enquiries; but at preſent we will leave them, and take a View of that beautiful Part of the Creation which inhabits the Air.

CHAP.

CHAP. VI.

Of BIRDS.

IF we conſider the Nature and Formation of Birds in general, many Reflections will naturally ariſe, and confirm in our Minds the Wiſdom and Goodneſs of God, in ſo wonderfully adapting all their Powers to the Uſes and Ends they were ordained to ſerve and purſue. All their Members, ſays the ingenious Mr. *Ray*, are moſt exactly fitted for the Uſe of flying. The Muſcles, which ſerve to move the Wings, are the largeſt and ſtrongeſt, becauſe much Force is required to the Agitation of them: the under Side of them is alſo made concave, and the upper convex, that they may be eaſily lifted up, and more ſtrongly beat the Air, which by this means doth more effectually reſiſt the Deſcent of their Body downwards. Then the Trunk of their Body doth ſomewhat reſemble the Hull of a Ship; the Head is like the Prow, and for the moſt part is ſmall, that it may the more eaſily cut the Air, and make way for their Bodies; the Tail ſerves to ſteer, govern, and direct their Flight, and turn their Bodies, like the Rudder of a Ship; which is evident in the Kite, who, by a light turning of his Train, moves his Body which Way he pleaſes. Neither doth the Tail ſerve only to direct and govern the Flight, but alſo to ſupport the Body, and keep it even; wherefore when ſpread, it lies parallel to the Horizon, not ſtands perpendicular to it, as Fiſhes do. And that they may the more eaſily be ſupported in the Air during their Flight, their Bodies are not only ſmall and hollow, but of a broad Figure; nay their very Bones are more thin and light than thoſe of other Animals. The Feathers alſo are peculiarly adapted to keep their little Bodies from being pierced with the Cold. And becauſe this Bird is to live ſeveral Years, and the Feathers in Time would, and muſt neceſſarily be worn and ſhattered, Nature hath made Proviſion for the caſting and renewing of them every Year. And to prevent their Feathers from being incommoded by Rains, all Birds have a Bag filled with Oil, and ſhaped like a Nipple, the Situation of which is at the Extremity of their Body. This Nipple has ſeveral ſmall Apertures, and when the Bird perceives her Feathers to be dry, ſoil'd, or diſorder'd by Gaps; or when ſhe foreſees approaching Rain, ſhe preſſes this Nipple with her Bill, ſqueezes out the oily Humour, and drawing her Bill



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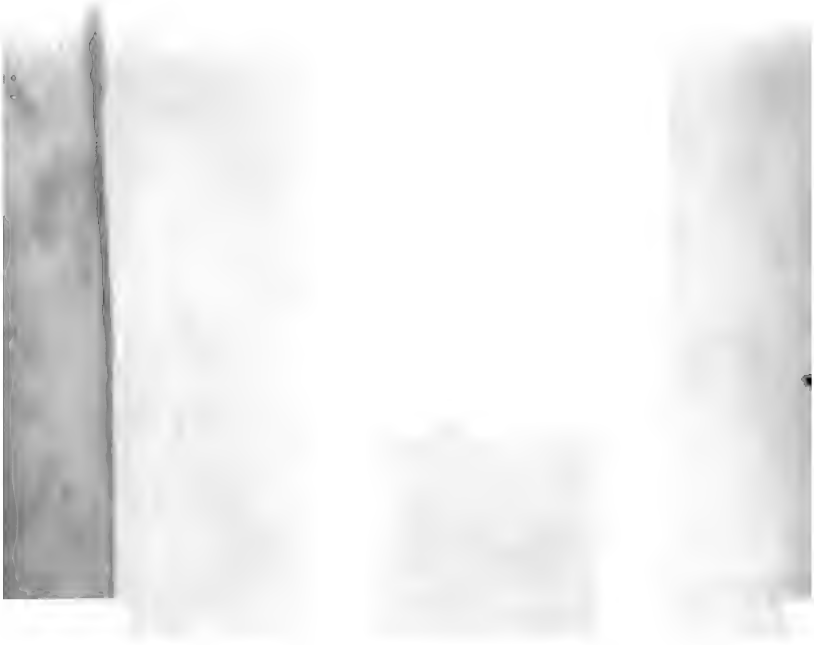

ceſſively over the greateſt Part of her Feathers, oils
ſes them, gives them a Luſtre, and fills up all the
es with this viſcous Matter; after which, the Water
les over the Bird, all the Avenues to her Body being
cloſed. Ducks, Geeſe, and all ſuch Fowls as live
Water, are provided with this unctuous Matter in
undance.

various Forms and different Situations of their Neſts,
citude and Care with which they attend their Eggs,
Birth and Education of their Young, deſerves alſo
tention, and will command your higheſt Admiration.
ll obſerve a ſurprizing Difference in the Materials,
ture, and Situation of the Neſts of the different
yet all of the ſame Species building exactly alike.
he Seaſon of Incubation or Sitting arrives, you will
active unſettled Creatures, forgetting their natural
ons, fix themſelves upon their Eggs, ſubmit to ſeve-
ks Reſtraint, renounce the Pleaſures that ſo agreeable
of the Year muſt afford, with a Care and Tender-
ally ſurprizing. And when at laſt their young Ones
then you will ſee all their Aſſiduity and Attention
to provide them with Food, to defend them from
and to take all other Care of their Education till
provide for themſelves, and then the kind parental
s ceaſes.

Cauſe of the Migration of ſome Species of Birds, or
dden Diſappearance at certain Seaſons of the Year,
be an Enquiry that will afford you ſome Pleaſure.
allow, the Stork, the Cuckoo, and ſome others,
they go, or where they hide themſelves, how they
ne Seaſon when to come, and when to depart, will
d you Matter of curious Enquiry, and uſeful En-
ent.

would have you regard theſe Leſſons rather as ſhort
d Directions, how you may turn over and look in-
ook of Nature, than as a full and ample Account of
various and uſeful Knowledge you will find there.
ve neither Time at preſent, nor Abilities for more.
nean while, I will give you the natural Hiſtory of
w of the moſt extraordinary Birds, and then we will
to Quadrupeds, or four-footed Beaſts.

Of the Eagle.

are many Sorts of EAGLES, but that
e Golden Eagle is chief, and is common-
n'd the King of Birds. He is found in
urts of *Arabia*, and in the remoteſt Parts

of *Scythia*. He is a Bird of great Strength, exceeding bold, and very voracious and fierce in devouring his Prey. He is of a large Size, near four Feet long from the Point of the Bill to the End of the Tail; and betwixt the Points of each Wing, when extended, near ſix Feet; his Beak is very ſtrong, crooked and ſharp, ſo alſo are his Talons or Claws. Their common Prey is Hares, Rabbits, Kids, Lambs, *&c.* but when preſſed by Hunger, they will ſeize on larger Animals. His Sight is ſo exceeding ſharp and piercing, that he can ſee his Prey upon the Ground, tho' at ever ſo great a Height in the Air, and darts upon it with a ſurprizing Rapidity. And as his Eye is of ſuch great Uſe in ſpying out his Prey, Nature has contrived to preſerve it with uncommon Care, having inſtead of one, provided it with four Lids or Covers. They build their Neſts generally on the Sides of high and inacceſſible Rocks, or on the Tops of old decay'd large Trees, and ſeldom lay above two Eggs at a Time. They live to a prodigious Age, ſome ſay three hundred Years, but that is probably a Miſtake.

Of the Oſtrich. This is generally thought to be the largeſt, at leaſt it is one of the talleſt Birds in the World, being full as high as a Man on Horſeback. It is found both in *Africa* and *Arabia*, particularly in the ſandy Deſarts of *Arabia*. The Head and Bill reſemble thoſe of a Duck, their Wings are not large enough in Proportion to their Body to raiſe them from the Ground, but ſerve as Sails or Oars to cut thro' or impel the Air, and add great Swiftneſs to their Feet, which are ſhod with a horny Subſtance, enabling them to tread firmly, and to run a long Time without hurting themſelves. They are frequently hunted with Greyhounds, and when in Danger of being taken, ſuddenly ſtop, let down one of their Wings, and covering their whole Body with it, ſuffer the Dog to get his Mouth full of Feathers, then taking to their Heels again, ere the Dog can diſengage himſelf from the Feathers, they are got a conſiderable Way before him. What is moſt remarkable of this Bird is, that ſhe lays her Eggs in the Sand, and entirely forgetting them, ſuffers them to be hatched by the Heat of the Sun, and quite contrary to all other Creatures whatſoever, appears utterly deſtitute of parental Affection.

The

The SWAN is one of the principal of thoſe amphibious web-footed Birds that live either by Land or Water. It is a large and ſtately Bird, of a Milk-white Colour, and on a fine Canal or River makes a beautiful Appearance. Its Neck is very long, and conſiſts of between twenty and thirty Joints, which enable it to fiſh as with a Line. In ſwimming it is ſaid to uſe one Foot as an Oar, and with the other to ſteer its Body. They generally make their Neſts among the Ruſhes, near the Banks of Rivers; and during the Time of the Female's ſitting, the Male will attack any body that comes near her Neſt, with great Fierceneſs and Obſtinacy. When on Land, they feed either on Graſs or Grain, and in the Water on Fiſh, or the Spawn of Fiſh; and they are ſaid to live upwards of a hundred Years. The Notion of this Bird's melodious ſinging before its Death is a vulgar Error, and might probably take its Riſe from the Fable of the Ancients, that the Soul of *Orpheus* the old *Greek* Poet and Muſician, paſſed by Tranſmigration into the Body of a Swan. *Of the Swan.*

Of all ſinging Birds the NIGHTINGALE is allowed to be the chief; his Notes are ſweeter, more melodious, and more various, than the Notes of any other Bird. And what is remarkable is his beginning to ſing, or at leaſt continuing to ſing, after all the others have ceaſed, as if conſcious to himſelf that his Muſic deſerved a more particular Regard. It is very rare that one can get a Sight of theſe Evening Muſicians; but the Beauty of their Feathers is not at all equal to the Melody of their Songs, their Colour being a duſky rediſh brown; and in Size and Shape they reſemble the Goldfinch. The Time of their ſinging and breeding their young ones, is from the latter End of *April* to the Beginning of *June*, after which they are never either heard or ſeen, 'till the ſame Seaſon returns again; inſomuch that many look upon them as a Bird of Paſſage. The particular Formation and delicate Structure of the Windpipe in ſinging Birds, ſo peculiarly adapted to form the niceſt Modulations of Voice, is very well worthy of curious Obſervation. *Of the Nightingale.*

This is one of the moſt noted of thoſe we call Birds of Paſſage, as it is a domeſtic Bird, dwelling altogether in Towns and Villages, and building its Neſts even in our Houſes. Of theſe Neſts the Architecture, the Materials, and their manner of uſing *Of the Swallow.*

them, are altogether ſurprizing. She wants neither Sticks, nor Hay, nor Ligaments of any Sort; but wetting her Breaſt and her Wings on the Surface of the Water, and then ſhaking the Moiſture over the Duſt, tempers and works it up with her Bill into a kind of Mortar or Cement, with which ſhe erects a Dwelling, equally ſecure and convenient, and with ſuch wonderful Exactneſs and Regularity, as is not to be imitated by the Art of Man. Concerning the Migration of theſe Birds, or their Diſappearance at the End of Summer, Naturaliſts are very much divided: ſome ſuppoſing that they take Wing by conſent about the End of *September*, and fly to ſome warmer Climate; and others, that they hide themſelves in Rocks, or Caves, or under the Surface of the Water, where they have ſometimes been found in great Numbers hanging together by the Feet like Bees in a Swarm. And that this is the Truth of the Matter appears probable alſo from hence, that at the Beginning of the Spring Seaſon, they are generally found near Rocks or watery Places, flying weakly about, as it were to try their Wings after their firſt Revival from their Winter Sleep.

Ut. Lat. I will conclude my Account of Birds with this Creature, as it partakes both of the Nature of Birds and of four-footed Beaſts. Its Head, Body, and the Hair or Furr with which it is covered, very much reſemble thoſe of a Mouſe; it alſo brings forth its young ones perfectly formed like the four-footed Kind, and gives them Suck. It partakes of the feather'd Kind, in having only two Legs, large Wings, and the Power of flying. Its Wings conſiſt of one entire Skin, webb'd together ſomewhat like the Feet of Water-Fowl, and at the Top of their Wings are two Hooks or Claws, which they make uſe of to hang by whilſt they are feeding, ſleeping, or reſting themſelves. Theſe Creatures very rarely appear in the Day-time, but fly in the Duſk of the Evening only, and are ſaid to ſleep all the Winter in the Holes of old Houſes or Walls. It is a very proper Emblem of a Man that acts a falſe or double Character, appearing now in one Light or Shape, and then in another; and as ſuch a Man is deſpiſed and kicked out of all honeſt Company, ſo theſe doubtful and amphibious Vermin are allowed the Honour of a Place neither amongſt the Birds nor Beaſts.

CHAP.

CHAP. VII.

Of Four-footed BEASTS.

WE are now come to that Part of the Animal Creation, which both in the Make of their Bodies, and in the Powers of their Minds, ſeem to approach the neareſt to Man. I have therefore reſerved to this Place the Conſideration of that Principle which is ſaid to govern and direct all the Animal World, except Mankind, I mean Inſtinct. Some Reflections on that Principle, and the Difference between it and Reaſon, will afford you a Leſſon both inſtructive and entertaining.

As the Author of all Beings hath endowed the human Mind with the Principle of Reaſon, to guide and direct Mankind in all the various Concerns of Life; ſo he hath implanted in all the inferior Creatures a Principle, which tho' leſs noble and extenſive, is a more uniform and certain Guide than Reaſon itſelf. This Principle we call Inſtinct. It ſhows itſelf differently in every different Species of Animals, yet in every Animal is ſuitable to the Nature and Circumſtances of that particular Species. Thus, as the ingenious Mr. *Ray* obſerves, all Creatures know how to defend themſelves, and offend their Enemies, where their natural Weapons are ſituate, and how to make uſe of them. A Calf will ſo manage his Head as tho' he would puſh with his Horns, even before they ſhoot. A Boar knows the Uſe of his Tuſks, a Dog of his Teeth, a Horſe of his Hoofs, a Cock of his Spurs, and a Bee of her Sting. Now, why another Animal which hath no Horns ſhould not make a Show of puſhing, or no Spurs, of ſtriking with his Legs, and the like, I know not, but that every Kind is providentially directed to the Uſe of its proper and natural Weapons. 2. Poultry, Partridge, and other Birds, at firſt Sight know Birds of Prey, and make Sign of it by a peculiar Note of their Voice to their Young, who preſently thereupon hide themſelves. 3. All young Animals as ſoon as they are brought forth, know their Food; for Example, ſuch as are nouriſhed with Milk, preſently find their Way to the Paps, and ſuck at them; whereas none of thoſe who are not deſigned for that Nouriſhment ever offer to ſuck, or ſeek for

any ſuch Food. 4. Such Creatures as are Web-footed or Fin-toed, whether Birds or Beaſts, are naturally directed to go into the Water, and ſwim there; as we ſee Ducklings, tho' hatched and laid by a Hen, if ſhe brings them to the Brink of a River, or Pond of Water, they preſently leave her, and in they go, tho' they never ſaw any ſuch thing done before, and tho' the Hen clucks and calls, and does what ſhe can to keep them out. 5. Birds of the ſame kind make their Neſts of the ſame Materials, laid in the ſame Order, and exactly of the ſame Figure; ſo that by the Sight of the Neſt one may eaſily know what Bird it belongs to; and this they do tho' living in diſtant Countries, and tho' they never ſaw nor could ſee any Neſt made. This, together with the curious and artificial Contexture of ſuch Neſts, and their Fitneſs and Convenience for the Reception, Hatching and Cheriſhing the Eggs and Young of their reſpective Builders, is a great Argument that they are acted upon by a Wiſdom ſuperior to their own, and driven as it were to bring about Ends which themſelves aim not at (ſo far as we can diſcern) but are directed to. *They act not by Art*, ſays *Ariſtotle*, *neither do they enquire, neither do they deliberate about what they do.* And therefore, as Dr. *Cudworth* well obſerves, they are not Maſters of that Wiſdom according to which they act, but only paſſive to the Inſtincts and Impreſſes thereof upon them. Laſtly, What can be more wonderful than the Migration of ſome kinds of Birds from a hotter to a colder Country; or from a colder to a hotter, according to their Nature, and to the different Seaſons of the Year? What moves them to ſhift their Quarters? What directs them which Way to ſteer their Courſe? What impels them to croſs an Ocean of which they can ſee no End, and enables them to overcome the Senſe of Hunger, and the Fear of Drowning? Theſe and many other Wonders, are diſcoverable in the Brute Creation; yet that it is Inſtinct, not Reaſon, they act by, appears manifeſtly from hence; that in all their Works there is no Variation, but every Species doth naturally purſue at all times the ſame Methods and Ways, without any Tutorage or Learning: whereas Reaſon without Inſtruction, would often vary, and do that by many Methods, which Inſtinct doth by one alone. The Reaſon of Man is an active and fruitful Principle, which knows, and would be perpetually enlarging its Attainments, which deliberates, wills, and chuſes with Freedom, which operates, and, if I may uſe the Expreſſion, daily creates new Works. If a Spider had all the Skill

of

of a Weaver, ſhe would make ſomething elſe beſide her Web; were the Swallow as ſkilful as a Maſon, ſhe would build with other Materials than Dirt. In ſhort, were Animals once capable of Thought, they would not be limited to one invariable Track; new Ideas would be infuſed into their Minds, and we ſhould not ſee them embarraſſed, ſtupid, and intractable when taken out of the Way of Life, which is peculiar to each Species.

Theſe Reflections may ſuffice at preſent to give you ſome faint Notion of the Difference between Reaſon and Inſtinct. We will now proceed to the natural Hiſtory of ſome few of the moſt remarkable Quadrupeds. And I cannot begin with a more noble or more uſeful Animal than the Horſe.

Of the Horſe.

* If Cuſtom had not dignify'd the Lion with the Title of King of Beaſts; Reaſon, one would think, could no where confer that Honour more deſervedly than on the Horſe. As to the Lion, he is endowed with no Kingly Qualities whatſoever, except thoſe of devouring his Subjects, and inſpiring them with Terror: but the Horſe, on the contrary, is never injurious to other Creatures, either in their Perſons or Properties; his Qualities are all amiable, and there is nothing in him that can excite the leaſt Averſion. There is ſuch a Nobleneſs in his Diſpoſition, ſuch a Beauty in his Formation, and ſuch a Grandeur in his whole Deportment, as ſtrongly attracts our Regard, and commands our Admiration. And if we conſider in how many various Ways he is uſeful and beneficial to Mankind, we ſhall become more and more engaged in his Favour. Is he required to cultivate our Lands, to bear Home our Harveſts, or to carry our Goods or Perſons from Place to Place? he is always prepar'd, and always willing, tho' wearied in our Service. Is he deſign'd for nobler Sports, to follow the Hounds and Horn o'er Hedges, Hills and Dales, or to try his Swiftneſs in the level Courſe; with what Ardor he ſeems inſpir'd! he ſnuffs the Air, he paws the Ground, he neighs, and ſeems to call aloud for the Trial; and in the generous Contention, ſuch is his Eagerneſs and Emulation, that he will often rather die than be outdone. Or is he called forth to bear our Warriors to the Field of Battle? how valuable is his Strength, his Swiftneſs, and his Conqueſt! † *His*

* Vide *Spectacle de la Nature*, Vol. I Dial. xii.
† Job Ch. xxxix. ver. 19.

Neck is cloathed with Thunder; the Glory of his Noſtrils is terrible. He paweth in the Valley, and rejoiceth in his Strength; he goeth on to meet the armed Men. He mocketh at Fear, and is not affrighted; neither turneth he back from the Sword. The Quiver rattleth againſt him, the glittering Spear and the Shield. He ſwalloweth the Ground with Fierceneſs and Rage, neither believeth he that it is the Sound of the Trumpet. He ſaith among the Trumpets, ha, ha! He ſmelleth the Battle afar off, the Thunder of the Captains and the Shouting.

Of the Dog. If the Horſe, on account of his noble and generous Qualities, claim the firſt Place among Animals, the Dog, for his Faithfulneſs and Sagacity, may very deſervedly be honour'd with the ſecond. There is ſcarce in any Species of Creatures whatſoever, ſo great a Variety as in that of Dogs; their Shape, their Size, their Colour, their Qualities are extremely different. The large *Engliſh* Maſtiff is famous for Strength and Courage; ſo alſo is the Bull-dog: the Greyhound is exceeding ſwift and quick-ſighted; the Hound ſlow, but ſo ſagacious in his Smell, that the fleeteſt Game can ſeldom eſcape him: the Spaniel is excellent on the Water, the Pointer in the Field: the common Cur is endowed with many Qualities uſeful to the Farmer, the Shepherd, and to every Houſekeeper; and the Lap-dog, for ſuch fine Ladies, or Lady-like Gentlemen as have nothing to do, is a very agreeable Companion. But the two Qualities of Faithfulneſs and Sagacity ſeem to run thro' the whole Kind, and many extraordinary Inſtances have been given both of the one and the other. *Plutarch* tells us, that in a public Spectacle which he himſelf ſaw exhibited before the Emperor *Veſpaſian* at *Rome*, a Dog was taught to perform a certain Part, in which he was to put on the Appearance of dying by Poiſon. That after the Piece of Bread was given him which was ſuppoſed to poiſon him, he began to reel and ſtagger, and at length fell down, ſeem'd to grow ſtiff, and lay to all Appearance without Life; inſomuch that he was dragged about the Stage by ſeveral People as a dead Dog, without giving any Signs of Motion: but that when his Part required him to come to Life, he firſt opened his Eyes, then moved his Head, then ſtretched himſelf, and at length got up. Another Inſtance of uncommon Sagacity is given us of a blind Dog. A large Company of People were got together in the Market-place at *Rome*, to ſee a Dog perform ſeveral Tricks which he had been taught by

by his Maſter, among the reſt this was one. Several of the Company agreed to give the Maſter different Pieces of Gold, Silver, Copper, Rings, Bracelets, and many other Things, which he put all together, and hid them under the Surface of the Earth; then commanding the Dog to ſeek, he preſently found them, and carry'd each Piece to its proper Owner without the leaſt Miſtake. There are Inſtances of uncommon Docility, and Proofs of ſome ſurprizing Powers in the Minds of theſe Animals, which if rightly attended to might be made of great Uſe to Mankind. Of their Love and Fidelity to their Maſters, and their great Care and Courage in defending their Perſons, their Houſes, their Cloaths, or any thing belonging to them, the Inſtances are innumerable, and happen every Day.

Of the Elephant.

Of all Land Animals the Elephant is by much the largeſt; and if common Reports are true, it is at leaſt equal to any in Underſtanding and Sagacity. They are bred only in hot Countries; the *Eaſt-Indies*, and ſome Parts of *Africa* abound with them very much. They are frequently eleven or twelve Feet high, many much higher; their Make is very clumſy, and their Strength prodigious. Their Colour is generally Mouſe Dun, or Black; and the Skin of their Sides and Back ſo hard that it is not eaſily pierced even by a Sword or Spear. Their Eyes are ſmall, ſomething reſembling thoſe of a Swine, but very red. They have four Teeth on each Side with which they grind their Meat, and two large Tuſks which hang out of their Mouths, and grow to a prodigious Size, frequently more than a hundred Weight each. Theſe they caſt every tenth Year, and by that means afford a very valuable Commodity to the Natives, who exchange theſe Ivory Teeth with the *Europeans* for many other Wares. But the moſt remarkable Part of the Elephant is his Proboſcis or Trunk. This is a large, hollow, griſtly Membrane, hanging down from the upper Part of his Noſe towards the Ground, and (if one may compare great Things with ſmall) ſomething like the Skin upon the Bill of a Turkey Cock. This wonderful Member is ſo admirably contrived, ſo curiouſly wrought, and with ſo great Agility and Readineſs applied by this unwieldy Creature to all its ſeveral Occaſions, that it is an Inſtance of ſuch uncommon Workmanſhip, as none but an Almighty Maker could contrive. Another Remarkable of this Creature is, that the Nipples of the Female are placed near her Breaſt, by reaſon

ſon ſhe is forced to ſuck herſelf, and by the Help of her Trunk conveys the Milk into the Mouth of her Young. The Time of their going with Young is one whole Year, and the Length of their Life is generally thought to be upwards of a hundred. They live upon Plants, or Roots, which they dig out of the Earth with their Tuſks; or upon the Fruit, or Branches of Trees, which they pull down with their Trunks. They are, when tamed, a very docile Creature; and the various Uſes the ancient *Indians*, and ſome other Nations, made of them in War, are aſtoniſhing. Many thouſands of them have at once been led to Battle, armed with various Weapons, and taught to exerciſe their Trunks with a miſchievous Dexterity. They were very uſeful alſo in throwing down Trees, Houſes, Walls, or whatever obſtructed the March of an Army. Large wooden Towers alſo were frequently fixed upon their Backs, capable of containing 15 or 20 Men armed with Spears and Javelins, which from ſuch an Elevation they darted at their Enemies with great Advantage. Yet it frequently happened, that theſe Creatures occaſioned as much Confuſion in the Armies to which they belonged, as in thoſe of their Enemies; wherefore the Uſe of them hath been long laid aſide. Many are the Arts and Stratagems made uſe of to take and tame theſe Creatures. One I remember to have read, I think, in *Pliny*, as follows. They dig a large Ditch, and putting therein ſuch Food as they know the Beaſt is fond of, he is attracted by the Smell, and betray'd into the Ditch, from whence he is not able to aſcend. Upon this comes a Man with Whips and Cords, who beats and torments him very ſeverely; preſently comes another, and ſeemingly in great Anger, beats and drives away the Man that tormented him, at the ſame time ſtroaking and ſoothing the Beaſt, and then departs. In a little time the firſt Man returns, and beats and whips him again with great Fury; again his Deliverer alſo appears, and drives him away: And this is repeated ſeveral times, till at length the Beaſt begins to recognize his Friend, and to ſhow ſome Signs of Affection, which the Man takes care to improve, by giving him, as he grows hungry, Food to eat, and Water to quench his Thirſt; ſtill growing more and more familiar, he at laſt digs an eaſy Aſcent out of the Ditch, and leads him forth entirely tamed and conquered by Love and Gratitude.

This Creature is about four Feet in Length, and in Breadth twelve or fifteen Inches. His Furr, in the *Northern* Countries, is generally of a blackiſh Colour; but in the more temperate Climates,

mates, it brightens into a reddiſh Tincture. He is covered with two ſorts of Hair, one long and hardiſh, the other a ſoft Down, which is manufactured into Stuffs, Hats, or Stockings. They have a large broad Tail, which is covered with Scales almoſt like thoſe of a Fiſh. Both the Male and the Female have two Bags under their Bellies, impregnated with a liquid Subſtance, called by the Phyſicians *Caſtoreum*, and when prepared by the Chymiſts, *Caſtor Drops*, or *Tincture of Caſtor*, *&c.* It is preſcribed as an excellent Remedy againſt Poiſons, Vapours, and many Indiſpoſitions. They are found in great Plenty in *Hudſon's-Bay*, *New-England*, and *Ruſſia*, which laſt produce the beſt *Caſtoreum*. What is moſt remarkable in theſe Creatures is their great Skill as Architects. They build their Apartments (or one may rather call them Towns and Cities, for they aſſociate together in great Numbers) with ſurprizing Art and Contrivance. When they have found a convenient Situation in the Banks of a River, their next Care is to ſeek out for proper Timber to ſupport the Roofs of their ſubterraneous Dwellings. For this Purpoſe they pitch upon a Tree, perhaps about as thick as a Man's Leg, which they gnaw with their Teeth till they have cut it down. Then they go to work upon the Branches, and break them into Lengths of one, two, or three Feet, according to the Uſes they intend them for. And when theſe, which are the main Joiſts and Supporters, are diſpoſed according to their Mind, they then weave or wattle them with ſmaller Twigs, and incruſt over the whole with a Plaiſter or Cement, which ſerves either to keep out Inundations, or to preſerve the Water in Reſervoirs for their own Uſe. Though againſt Inundations they are generally provided with upper Apartments, which they retire to when the Floods ariſe, and deſcend from when the Waters ſubſide.

Of the Sheep.

I will conclude my Leſſons to you on the Subject of Animals, with a few Reflections on one, which, though it be the moſt common, is nevertheleſs the moſt curious, the moſt innocent, and the moſt uſeful Creature upon the Face of the Earth. You will immediately gueſs I mean the Sheep: For what other Animal can compare with it in any of thoſe Inſtances? Of what vaſt Importance to the Public is the Wool which grows upon its Back, and which is ſhorn off every Year for the Uſe of Man! How many thouſands of poor People are employed in ſcouring, carding, combing, and ſpinning it? How many more in weaving

it

it into Cloths, or Stuffs, or Stockings? When theſe Commodities come into the Hands of the Merchant, they are exported to every Quarter of the Globe, and the richeſt and the moſt valuable Products of the whole Earth are brought Home in Exchange for theſe our Golden Fleeces. Add to this, the many and various Uſes that are made of its Skin; either as Parchment to write on; or as Leather for our Wear in Breeches, Gloves, *&c.* or as a uſeful Commodity in binding of Books, covering of Sheaths for Swords, Caſes for Inſtruments, and many other Things. And laſtly, one might add farther, if it did not ſavour too much of Ingratitude and Cruelty to ſo uſeful, ſo inoffenſive and harmleſs a Creature, the delicious Food which its Fleſh affords for the Nouriſhment of our Bodies.

And thus I have given you, in as ſhort and plain a Manner as I could, a View as it were in Miniature of ſome of the principal Things which will meet your Obſervation in this viſible World. I ſhould now, according to my Promiſe and my Plan, conclude the Whole with ſome Reflections upon Man, the laſt and nobleſt of the Works of God. But this would open a Scene too large for me to expatiate in at preſent, and perhaps too intricate in ſome of its Parts for you to follow me. It would lead me firſt, to conſider the Form and Structure of his Body; the Convenience and Fitneſs of its ſeveral Parts for the Offices they are to perform. The Head and Brain to contrive, the Hands to execute, *&c.* I ſhould alſo be led to make ſome Obſervations on the Five Senſes. The curious Structure of the Eye, and the Nature of Viſion, or Seeing: the Mechaniſm of the Ear, and the Doctrine of Sounds and Hearing: the Noſe, and its Senſe of Smelling: the Palate, and its Tatting: and the delicate Senſe of Feeling, which is diffuſed over the whole Body. I ſhould thence be led to conſider the Mind, and the ſeveral Powers of Perception, Reflection, and Judgment, or Determination. The great Uſe and Advantage of Speech or Language, by which Mankind are enabled to communicate their own Thoughts, and to receive diſtinctly the Thoughts of others, to the Improvement of their own Minds, and the Increaſe of Knowledge in general. The wonderful Powers of his Imagination and Invention would alſo be remembered, by which he has been enabled to diſcover and bring to great Perfection the Sciences of Arithmetic, Geometry, Algebra, Navigation, Mechanics, and all Mathematical Learning. To meaſure and calculate the

the Diſtances, Magnitudes, Motions, and Eclipſes of all thoſe vaſt and numberleſs Bodies that compoſe this univerſal Frame. And not only has he been enabled to conceive theſe great and wonderful Things, but by the noble and uſeful Invention of Letters and Writing, to perpetuate theſe his Conceptions, and convey them down from Age to Age, for every ſucceeding Generation to improve upon to the End of Time. Such and ſo copious is the Study of Man. I ſhall therefore leave you to gain a thorough Knowledge of yourſelf, as you grow in Years and Experience, and happy will you be if you truly attain it, even by the Time you arrive at perfect Manhood.

PART IX.

ON

Moral PHILOSOPHY.

THE ELEMENTS OF Moral PHILOSOPHY.

BOOK I.

PRELIMINARIES.

Μάλισα ἐπιμελητέον ὅπως ἕκας☉ ἡμῶν, τῶν ἄλλων Μαθημάτων ἀμελήσας, τέτε τῆ Μαθήματ☉, καὶ τηρήσης καὶ μαθήσης ἔσαι. ἐαν ποθὲν οἷος τ' ἦ μαθεῖν καὶ ἐξευρεῖν τίς αὐτὸν ποιήσει δυναῖδν καὶ ἐπισήμονα. BION καὶ ΧΡΗΣΤΟΝ καὶ ΠΟΝΗΡΟΝ δια ινώσκοντα, τὸν βελτίω ἐκ τῶν δυαιῶν ἀεὶ παντα χῆ αἱρεῖθαι. ἀναλογιζόμενον παντα, τὰ νῦν δὴ ῥηθέντα, καὶ ξυντιθέμενα ἀλλήλο ς, καὶ διαιρυμενα. πρὸς ἀρετὴν, βίε πῶς ἔχει. καὶ εἰδέναι τί κάλλ☉ πενία ἢ πλύτῳ κεσθὲν. καὶ μετὰ ποίας τινὸς ψυχης ἕξεως κακὸν ἢ. ἀγαθον ἐργάζετα·——καὶ πόντα τὰ τοιαῦτα τῶν φύσει πρὸς ψυχην ὄντων. καὶ τῶν ἐπικτήτων, τὰ ξυσκευαννύμε α πρὸς ἄλληλα ἐργαζέται. ὥστε ἐξ ἁπάντων αὐτῶν δυνατον εἶναι συλλογισάμενον αἱρεῖδζ. πρὸς τὴν τῆς ΨΥΧΗΣ ΦΥΣΙΝ ἀποβλέποντα, τὸν τε χείρω καὶ τὸν ἀμείνω BION. *Plut.* de *Repub.* Lib. 10.

HUMAN KNOWLEDGE has been diſtributed by Philoſophers into different Branches, and into more or fewer Diviſions, according to the more or leſs extenſive Views, which they have taken of the various Subjects of *Human* Enquiry.

Partition of Knowledge.

A great Philoſopher * has laid it out into three general Provinces, HISTORY, POETRY, and PHILOSOPHY; which he refers to three ſeveral Powers of the Mind, MEMORY, IMAGINATION, and REASON. *Memory* ſtores up Facts, or Ideas, which are the Materials of Knowledge. *Imagination* ranges and combines them into different Aſſemblages or Pictures. *Reaſon* obſerves their Differences, Connections, and mutual Relations, and argues concerning them.

Philoſophy in general.

The *laſt* is the proper Buſineſs of PHILOSOPHY, which has been defined, the "*Knowledge of what-*"*ever exiſts*," or the "*Science of Things Human*" *and Divine.*" According to this Definition, its Object comprehends the *Univerſe* or *Whole of Things*. It traces whatever can be known by Man concerning the *Deity* and his *Works*, their Natures, Powers, Operations, and Connections.

Diviſion of Philoſophy.

Therefore to give our Definition more Preciſion, PHILOSOPHY may be defined, the Knowledge of the Univerſe, or of Nature, and of its Powers, Operations, and Connections, with juſt Reaſonings deduced from thence. *Natural Philoſophy* inveſtigates the Properties and Operations of *Body* or *Matter*. *Moral Philoſophy* contemplates *Human Nature*, its *Moral Powers* and *Connections*, and from theſe deduces the Laws of Action; and is defined more ſtrictly the "*Science of* MANNERS or DUTY, which "it traces from Man's Nature and Condition, and ſhews to "terminate in his Happineſs." Therefore it is called *Ethics*, *Diſciplina Morum*. In fewer Words, it is the "*Knowledge of* "*our* DUTY *and* FELICITY, or the *Art of being virtuous and* "*happy.*"

Natural.

Moral.

How an Art.

It is denominated an ART, as it contains a Syſtem of Rules for becoming *virtuous* and *happy*. Whoever practiſes theſe Rules, by ſo doing, attains an habitual Power and Facility of becoming *virtuous* and *happy*. It is likewiſe called a SCIENCE, as it deduces thoſe Rules from the Principles and Connections of our Nature, and proves that the Obſervance of them is productive of our Happineſs.

How a Science.

Its Object.

Its Office.

It is an *Art*, and a *Science* of the higheſt Dignity, Importance, and Uſe. Its Object is Man's Duty, or his Conduct in the ſeveral Moral Capacities and Connections which he ſuſtains. Its *Office* is to direct

* *Vid. Bacon. Aug. Scient. Lib. II. cap.* 1.

direct that Conduct, to shew whence our Obligations arise, and where they terminate. Its *Use*, or *End*, is the Attainment of Happiness; and the *Means* it employs are Rules for the right Conduct of our *Moral Powers*.

Its End.

Its Means.

As every Art and Science is more or less valuable, as it contributes more or less to our Happiness, this *Moral Art* or *Science* which unfolds our Duty and Happiness, must be a proper Canon or Standard, by which the Dignity and Importance of every other Art and Science, are to be ascertained. It is therefore pre-eminent above all others; it is that *Master-Art*, that *Master-Science*, which weighs their respective Merit, adjusts their Rank in the Scale of Science, prescribes their Measure, and superintends their Efficacy and Application in Human Life. Therefore *Moral Philosophy* has been honoured with the glorious Epithets of the *Directness of Life*, the *Mistress of Manners*, the *Inventress of Laws and Culture*, the *Guide to Virtue and Happiness*, without some degree of which Man were a Savage, and his Life a Scene of Barbarity and Wretchedness.

The Standard of other Arts and Sciences.

Having thus settled the *Subject* and *End* of the Science, the Elements of which we are attempting to discover, and sufficiently distinguished it from all others, it seems proper next to fix the *Method* of prosecuting it. *Moral Philosophy* has this in common with *Natural Philosophy*, that it appeals to *Nature* or *Fact*; depends on Observation; and builds its Reasonings on plain uncontroverted Experiments, or upon the fullest Induction of Particulars of which the Subject will admit. We must observe, in both these Sciences, *Quid faciat & ferat Natura*; how Nature is affected, and what her Conduct is in such and such Circumstances. Or in other Words, we must collect the *Phænomena*, or *Appearances of Nature* in any given Instance; trace these to some *General Principles*, or *Laws of Operation*; and then apply these *Principles* or *Laws* to the explaining of other *Phænomena*.

The Method.

Therefore Moral Philosophy enquires, not how Man *might have been*, but how he *is constituted*; not into what *Principles*, or *Dispositions* his Actions *may be artfully* resolved, but from what Principles and Dispositions they *actually* flow; not what he *may*, by Education, Habit or foreign Influence, come to *be*, or *do*, but what by his *Nature*, or *Original Constituent Principles* he is *formed* to *be* and *do*. We discover the *Office*, *Use*, or *Destination* of any Work, whether *natural* or

artificial, by obſerving its Structure, the Parts of which it conſiſts, their Connection or joint Action. It is thus we underſtand the *Office* and *Uſe* of a Watch, a Plant, an Eye, or Hand. It is the ſame with a *Living Creature*, of the *Rational*, or *Brute Kind*. Therefore to determine the *Office*, *Duty*, or *Deſtination* of *Man*, or in other Words what his *Buſineſs* is, or what *Conduct* he is *obliged* to purſue, we muſt inſpect his *Conſtitution*, take every Part to Pieces, examine their *mutual Relations* one to the other, and the common Effort or Tendency of the Whole.

SECTION I.

Of Man and his Connections.

IN giving a rude Sketch or Hiſtory in Miniature of *Man*, we muſt remember that he riſes from ſmall Beginnings, unfolds his Faculties and Diſpoſitions by Degrees, as the Purpoſes of Life require their Appearance, advances ſlowly through different Stages to Maturity, and when he has reached it, gradually declines till he ſinks into the Grave. Let us accompany him in his Progreſs through theſe ſucceſſive Stages, and mark the *Principles* which actuate, and the *Fortunes* which attend him in each, that we may have a full View of him.

Man's Infant State.

Man is born a weak, helpleſs, delicate Creature, unprovided with Food, Cloathing, and whatever elſe is neceſſary for Subſiſtence, or Defence. And yet, expoſed as the Infant is to numberleſs Wants and Dangers, he is utterly incapable of ſupplying the *former*, or ſecuring himſelf againſt the *latter*. But though thus feeble and expoſed, he finds immediate and ſure Reſources in the *Affection* and *Care* of his Parents, who refuſe no Labours, and forego no Dangers, to nurſe and rear up the tender Babe. By theſe powerful Inſtincts, as by ſome mighty Chain, does Nature link the *Parent* to the *Child*, and form the ſtrongeſt *Moral Connection* on his Part, before the Child has the leaſt Apprehenſion of it. *Hunger* and *Thirſt*, with all the Senſations that accompany or are connected with them, explain themſelves by a Language ſtrongly expreſſive, and irreſiſtibly moving. As the ſeveral Senſes bring in Notices and Informations of ſurrounding Objects, we may perceive in the

the young Spectator, early Signs of a growing *Wonder* and *Admiration*. Bright Objects and ſtriking Sounds are beheld and heard with a ſort of Commotion and Surprize. But without reſting on any, he eagerly paſſes on from Object to Object, ſtill pleaſed with whatever is moſt new. Thus the *Love* of *Novelty* is formed, and the Paſſion of *Wonder* kept awake. By degrees he comes acquainted with the moſt familiar Objects, his Parents, his Brethren, and thoſe of the Family who are moſt converſant with him. He contracts a *Fondneſs* for them, is uneaſy when they are gone, and charmed to ſee them again. Theſe Feelings become the Foundation of a *Moral Attachment* on his Side, and by this reciprocal Sympathy he forms the Domeſtic Alliance with his Parents, Brethren, and other Members of the Family. Hence he becomes intereſted in their Concerns, and feels *Joy*, or *Grief*, *Hope*, or *Fear* on their Account, as well as his own. As his Affections now point beyond himſelf to others, he is denominated a *good* or *ill* Creature, as he ſtands *well* or *ill affected* to them. Theſe then are the firſt Links of the *Moral Chain*, the early Rudiments, or Out-lines of his Character, his firſt rude Eſſays towards Agency, Freedom, Manhood.

His Childhood.

When he begins to make Excurſions from the Nurſery, and extend his Acquaintance abroad, he forms a little Circle of Companions, engages with them in Play, or in queſt of Adventures; and leads, or is led by them, as his Genius is more or leſs aſpiring. Though this is properly the Seaſon in which *Appetite* and *Paſſion* have the *Aſcendant*, yet his *Imagination* and *Intellectual* Powers open apace; and as the various Images of Things paſs before the Mental Eye, he forms Variety of Taſtes; reliſhes ſome things and diſlikes others, as his Parents, Companions, and a thouſand other Circumſtances lead him to combine agreeable, or diſagreeable Sets of Ideas, or repreſent to him Objects in alluring or odious Lights.

As his Views are enlarged, his *Active* and *Social* Powers expand themſelves in Proportion; the *Love of Action*, of *Imitation*, and of *Praiſe*, *Emulation*, *Curioſity*, *Docility*, a *Paſſion for Command*, and *Fondneſs of Change*. His Paſſions are quick, variable, and pliant to every Impreſſion, his Attachments and Diſguſts quickly ſucceed each other. He compares Things; diſtinguiſhes Actions, judges of Characters, and loves or hates them, as they appear well or ill affected to himſelf, or to thoſe he holds dear. Mean while he ſoon grows ſenſible of the Conſequences of his own Actions, as they attract Applauſe, or bring Contempt; he triumphs in the former, and

is aſhamed of the latter; wants to hide them, and bluſhes when they are diſcovered. By means of theſe Powers he becomes a fit Subject of Culture, the Moral Tie is drawn cloſer, he feels that he is accountable for his Conduct to others as well as to himſelf, and thus is gradually ripening for Society and Action.

His Youth. As Man advances from *Childhood* to *Youth*, his Paſſions as well as Perceptions take a more extenſive Range. New Senſes of Pleaſure invite him to new Purſuits; he grows ſenſible to the Attractions of Beauty, feels a peculiar Sympathy with the Sex, and forms a more tender kind of Attachment than he has yet experienced. This becomes the Cement of a *new Moral Relation*, and gives a ſofter Turn to his Paſſions and Behaviour. In this turbulent Period he enters more deeply into a *Reliſh of Friendſhip*, *Company*, *Exerciſes*, and *Diverſions*; the *Love of Truth*, of *Imitation*, and of *Deſign*, grows upon him; and as his Connections ſpread among his Neighbours, Fellow-Citizens, and Countrymen, his *Thirſt of Praiſe*, *Emulation*, and *Social Affections* grow more intenſe and active. Mean while, it is impoſſible for him to have lived thus long without having become ſenſible of thoſe more auguſt Signatures of Order, Wiſdom, and Goodneſs, which are ſtamped on the viſible Creation; and of thoſe ſtrong Suggeſtions within himſelf of a Parent-Mind, the Source of all Intelligence and Beauty; and Object as well as Source of that Activity, and thoſe Aſpirations which ſometimes rouze his inmoſt Frame, and carry him out of himſelf to an all-mighty and all-governing Power: Hence ariſe thoſe Sentiments of *Reverence*, and thoſe Affections of *Gratitude*, *Reſignation*, and *Love*, which link the Soul with the Author of Nature, and form that moſt ſublime and god-like of all Connections.

His Manhood. Man having now reached his Prime, either new Paſſions ſucceed, or the old Set are wound up to an higher Pitch. For, growing more ſenſible of his Connection with the Public, and that particular Community to which he more immediately belongs; and taking withal a larger Proſpect of Human Life, and its various Wants and Enjoyments, he forms more intimate Friendſhips, graſps at Power, courts Honour, lays down cooler Plans of Intereſt, and becomes more attentive to the Concerns of Society; he enters into Family-Connections, and indulges thoſe Charities which ariſe from thence. The *reigning* Paſſions of this Period, powerfully prompt him to provide for the Decays of Life; and in it *Compaſſion* and *Gratitude* exert their Influence in urging the *Man*, now in full Vigour, to requite the

Affection

fection and Care of his Parents by ſupplying their Wants
d alleviating their Infirmities.

At length Human Life verges downwards, and
'd *Age* creeps on apace with its *Anxiety*, *Love* *Old Age.*
Eaſe, *Intereſtedneſs*, *Fearfulneſs*, *Foreſight*,
d *Love of Offſpring*. The Experience of the Aged is formed
direct, and their Coolneſs to temper the Heat of Youth;
e former teaches them to look back on paſt Follies, and
e latter to look forward into the Conſequences of Things,
d provide againſt the worſt *. Thus every Age has its pe-
liar Genius and Set of Paſſions, coreſponding to that Pe-
d, and moſt conducive to the Proſperity of the reſt. And
ıs are the *Wants* of one Period ſupplied by the *Capacities* of
other, and the *Weakneſſes* of one Age tally to the *Paſſions* of
other.

Beſides theſe, there are other Paſſions and Af- *Paſſions of*
ions of a leſs *ambulatory* Nature, not peculiar *every Age.*
one Period, but belonging to every Age, and
ing more or leſs in every Breaſt throughout Life. Such are,
lf-Love, *Benevolence*, *Love of Life*, *Honour*, *Shame*, *Hope*,
ar, *Deſire*, *Averſion*, *Joy*, *Sorrow*, *Anger*, and the like.
he two firſt are Affections of a cooler Strain, one pointing
the Good of the Individual, the other to that of the Spe-
s; *Joy* and *Sorrow*, *Hope* and *Fear*, ſeem to be only Mo-
ications, or different Exertions of the ſame *Original* Af-
ions of *Love* and *Hatred*, *Deſire* and *Averſion*, ariſing
m the different Circumſtances or Poſition of the Object
ired or abhorred, as it is preſent or abſent. From theſe
ewiſe ariſe other *Secondary*, or *Occaſional* Paſſions, which de-
nd, as to their Exiſtence and ſeveral Degrees, upon the Ori-
ıal Affections, being gratified or diſappointed, as *Anger*, *Com-*
ıcence, *Confidence*, *Jealouſy*, *Love*, *Hatred*, *Dejection*, *Exul-*
ien, *Contentment*, *Diſguſt*, which do not form *Leading* Paſſions,
t rather hold of them.

By theſe ſimple, but powerful Springs, whe- *Their joint*
r *periodical* or *fixed*, the Life of Man, weak *Effects.*
d indigent as he is, is preſerved and ſecured,
d the Creature is prompted to a conſtant
ound of Action, even to ſupply his own numerous and ever-
urning *Wants*, and to guard againſt the various *Dangers*
d *Evils* to which he is obnoxious. By theſe Links, Men
: connected with each other, formed into Families, drawn
o particular Communities, and all united, as by a common

* See *Hor. de Art. Poet.*

League, into one Syſtem or Body, whoſe Members feel and ſympathize one with another. By this admirable Adjuſtment of the Conſtitution of *Man* to his *State*, and the gradual Evolution of his Powers, Order is maintained, Society upheld, and Human Life filled with that Variety of Paſſion and Action, which at once enliven and diverſify it.

The Directing Power.

This is a ſhort Sketch of the *Principal Movements* of the Human Mind. Yet, theſe Movements are not the Whole of Man; they impel to Action, but do not direct it; they need a *Regulator* to guide their Motions, to meaſure and apply their Forces. And accordingly they have one that naturally *ſuperintends* and *directs* their Action. We are conſcious of a *Principle* within us, which examines, compares, and weighs Things, notes the Differences, obſerves the Forces, and foreſees the Conſequences of Affections and Actions. By this Power we look back on paſt times, and forward into Futurity, gather Experiences, eſtimate the real and comparative Value of Objects, lay out Schemes, contrive Means to execute them, and ſettle the whole Order and Oeconomy of Life. This Power we commonly diſtinguiſh by the Name of REASON, or REFLECTION, the Buſineſs of which is not to ſuggeſt any original Notices or Senſations, but to canvaſs, range, and make Deductions from them.

The judging or approving Powers.

We are intimately conſcious of another Principle within us, which approves of certain *Sentiments*, *Paſſions*, and *Actions*, and diſapproves of their Contraries. In conſequence of the Deciſions of this inward Judge, we denominate ſome Actions and Principles of Conduct, *right*, *honeſt*, *good*, and others *wrong*, *diſhoneſt*, *ill*. The former excite our *Eſteem*, *Moral Complacence*, and *Affection*, immediately and originally of themſelves, without regard to their Conſequences, and whether they affect our Intereſt or not. The latter do as naturally and neceſſarily call forth our *Contempt*, *Scorn*, and *Averſion*. That Power, by which we perceive this Difference in Affections and Actions, and feel a conſequent Reliſh or Diſlike, is commonly called CONSCIENCE, or the MORAL SENSE. Whether ſuch a Power belongs to human Nature or not, muſt be referred to every one's Experience of what paſſes within himſelf.

Theſe Powers different from Affections

Theſe two Powers of *Reaſon* and *Conſcience*, are evidently Principles different in *Nature* and *Kind* from the Paſſions and Affections. For the Paſſions are mere *Force* or *Power*, *blind Impulſes*,

Impulſes, acting violently and without Choice, and ultimately tending each to their reſpective Objects, without regard to the Intereſt of the others, or of the whole Syſtem. Whereas the *Directing* and *Judging* Powers diſtinguiſh and aſcertain the different Forces, mutual Proportions and Relations, which the Paſſions bear to each other and to the Whole; recognize their ſeveral Degrees of Merit, and judge of the whole Temper and Conduct, as they reſpect either the Individual or the Species; and are capable of directing or reſtraining the blind Impulſes of Paſſion in a due Conſiſtency one with the other, and a regular Subordination to the whole Syſtem. ——Let this Difference be remembered.

Diviſion of the Paſſions.

This is ſome Account of the *Conſtituent Principles* of our Nature, which, according to their different Mixtures, Degrees, and Proportions, mould our Character and ſway our Conduct in Life. In reviewing that large Train of Affections which fill up the different Stages of Human Life, we perceive this obvious Diſtinction among them; that ſome of them reſpect the *Good* of the *Individual*, and others carry us beyond Ourſelves to the *Good* of the *Species*, or *Kind*. The former have therefore been called *Private*, and the latter *Public* Affections. Of the firſt Sort are *Love of Life*, of *Pleaſure*, of *Power*, and the like. Of the laſt are *Compaſſion*, *Gratitude*, *Friendſhip*, *Natural Affection*, and the like. Of the *Private* Paſſions *, ſome reſpect merely the *Security* and *Defence* of the Creature, ſuch as *Reſentment*, and *Fear*; whereas others aim at ſome *Poſitive* Advantage or Good, as *Wealth*, *Eaſe*, *Fame*.

Defenſive Paſſions.

The former Sort therefore, becauſe of this Difference of Objects, may be termed *Defenſive* Paſſions. Theſe anſwer to our *Dangers*, and prompt us to avoid them if we can, or boldly to encounter them when we cannot.

Private or Appetitive Paſſions.

The other Claſs of *Private* Paſſions, which purſue *private poſitive* Good, may be called *Appetitive*. However we ſhall ſtill retain the Name of *Private*, in Contradiſtinction to the *Defenſive* Paſſions. Man has a great Variety of Wants to ſupply, and is capable of many Enjoyments, according to the ſeveral Periods of his Life, and the different Situations in which he is placed. To theſe therefore, a ſuitable Train of *Private*

* *Here we uſe* Paſſions *and* Affections *without Diſtinction. Their Difference will be marked afterwards.*

Private Paſſions correſpond, which engage him in the Purſuit of whatever is neceſſary for his Subſiſtence, or Welfare.

Public Paſſions. Our *Public* or *Social* Affections are adapted to the ſeveral *Social Connections* and *Relations* which we bear to others, by making us ſenſible of their Dangers, and intereſting us in their Wants, and ſo prompting us to ſecure them againſt one, and ſupply the other.

The Appeal. Whether this Hiſtoric Draught of *Man*, and of that Groupe of Figures and Connections with which he is environed be juſt or not, is a Matter, not ſo much of Reaſoning, as common Senſe and common Experience. Therefore let every one conſult his Experience of what he feels within, and his Knowledge of what is tranſacted abroad, in the *little*, or the *great* World in which he lives; and by that Experience, and that Knowledge, let the Picture be acknowledged *Juſt*, or pronounced the *Contrary*. For to that Experience, and to that Knowledge, and to theſe alone the Deſigner appeals.

This is the firſt Step then to diſcover the *Duty* and *Deſtination* of Man, the having analyzed the Principles of which he is compoſed. It is neceſſary, in the next place, to conſider in what *Order*, *Proportion*, and *Meaſure* of theſe inward Principles, *Virtue*, or a ſound Moral Temper, and right Conduct conſiſts; that we may diſcover whence *Moral Obligation* ariſes.

SECT. II.

Of Duty, or Moral Obligation.

The Meaſure of Powers. IT is by the *End* or *Deſign* of any *Power* or *Movement*, that we muſt direct its *Motions*, and eſtimate the *Degree* of Force neceſſary to its juſt Action. If it want the Force requiſite for the obtaining its End, we reckon it *defective*; if it has too much, ſo as to be carried beyond *it*, we ſay it is *overcharged*; and in either Caſe it is imperfect, and ill-contrived. If it has juſt enough to reach the Scope, we eſteem it *right*, and as it ſhould be. Let us apply this Reaſoning to the Paſſions.

The

he *Defence* and *Security* of the Individual
g the *Aim* of the *defenſive Paſſions*, that *Se-*
y and *Defence* muſt be the *Meaſure* of their
gth or *Indulgence*. If they are ſo *weak* as
move inſufficient for that End, or if they
us beyond it, i. e. raiſe unneceſſary Commotions, or con-
longer than is needful, they are unfit to anſwer their ori-
l Deſign, and therefore are in an unſound and unnatural
. The Exerciſe of *Fear* or of *Reſentment*, has nothing
able in it, nor can we give way to either without painful
ations. Without a certain Degree of them we are naked
expoſed. With too high a Proportion of them we are mi-
le, and often injurious to others. Thus *Cowardice* or
dity, which is the Exceſs of Fear, inſtead of ſaving us in
ger, gives it too formidable an Appearance, makes us in-
ble of attending to the beſt Means of Preſervation, and
ms us of *Courage*, our natural Armour. *Fool-hardineſs*,
h is the Want of a due Meaſure of *Fear*, leads us heed-
into Danger, and lulls us into a pernicious Security. *Re-*
e, i. e. *exceſſive Reſentment*, by the Violence of its Com-
ion, robs us of that *Preſence of Mind* which is often the
Guard againſt Injury, and inclines us to purſue the Ag-
or with more Severity than Self-defence requires. *Puſilla-*
ty, or the Want of a juſt Indignation againſt Wrong,
s us quite unguarded, and tends to ſink the Mind into a
ve enervated Tameneſs. Therefore "*to keep the defenſive*
aſſions duly proportioned to our Dangers, is their *natural*
itch and Tenour."

Meaſure of the defenſive Paſſions.

he *private* Paſſions lead us to purſue ſome
ive Species of *private* Good. That *Good*
efore, which is the Object and End of each,
t be the *Meaſure* of their reſpective Force,
direct their Operation. If they are too
t or *ſluggiſh* to engage us in the Purſuit of their ſeveral
ects, they are evidently *deficient*; but if they defeat their
by their *Impetuoſity*, then are they ſtrained beyond the
Tone of Nature. Thus *Vanity*, or an *exceſſive Paſſion*
Applauſe, betrays into ſuch Meanneſſes and little Arts of
ularity, as makes us forfeit the Honour we ſo anxiouſly
t. On the other hand, a *total Indifference about the*
em of Mankind, removes a ſtrong Guard and Spur to
ue, and lays the Mind open to the moſt abandoned Proſe-
ons. Therefore, "*to keep our private Paſſions and De-*

Meaſure of the private Paſſions.

"*ſires*

" *ſires proportioned to our* WANTS, *is the juſt Meaſure and* " *Pitch of this Claſs of Affections.*"

Comparative Force.

The *defenſive* and *private* Paſſions do all agree in general, in their Tendency or Conduciveneſs to the Intereſt or Good of the Individual. Therefore when there is a Colliſion of Intereſt, as may ſometimes happen, that *Aggregate of Good* or *Happineſs*, which is compoſed of the particular Goods to which they reſpectively tend, muſt be the common Standard by which their *comparative Degrees* of Strength are to be meaſur'd. That is to ſay, if any of them in the Degree in which they prevail, are incompatible with the greateſt Aggregate of Good, or moſt extenſive Intereſt of the Individual, then are they unequal and diſproportionate. For, in judging of a particular *Syſtem* or *Conſtitution* of Powers, we call that the *ſupreme* or *principal* End, in which the Aims of the ſeveral Parts or Powers coincide, and to which they are ſubordinate; and reckon them in due Proportion to each other, and right with regard to the Whole, when they maintain that Subordination or Subſerviency. Therefore, " to proportion our defenſive and private Paſſions in ſuch " meaſure to our Dangers and Wants, as beſt to ſecure the " Individual, and obtain the greateſt Aggregate of private " Good or Happineſs, is their juſt Balance, or comparative " Standard in Caſe of Competition."

Meaſure of the public Affections.

In like manner, as the *public* or *ſocial* Affections point at the Good of others, that *Good* muſt be the Meaſure of their Force. When a particular *ſocial* Affection, as *Gratitude* or *Friendſhip*, which belongs to a particular *ſocial Connection*, viz. that of a *Benefactor* or of a *Friend*, is too feeble to make us act the *grateful* or *friendly* Part, that Affection being inſufficient to anſwer its End, is *defective* and *unſound*. If, on the other hand, a particular Paſſion of this Claſs counteract or defeat the Intereſt it is deſigned to promote, by its Violence or Diſproportion, then is that Paſſion *exceſſive* and *irregular*. Thus *natural Affection*, if it degenerates into a *paſſionate* Fondneſs, not only hinders the Parents from judging coolly of the Intereſt of their Offspring, but often leads them into a moſt partial and pernicious Indulgence.

Colliſion of ſocial affections.

As every kind Affection points at the Good of its particular Object, it is poſſible there may be ſometimes a Colliſion of Intereſts or Goods. Thus the Regard due to a *Friend* may interfere with that which we owe to a *Communi-*

ty. In ſuch a Competition of Intereſts, it is evident, that the *greateſt* is to be choſen; and that is the greateſt Intereſt, which contains the greateſt Sum or Aggregate of public Good, greateſt in *Quantity* as well as *Duration.* This then is the *common Standard*, by which the reſpective Forces and Subordinations of the ſocial Affections muſt be adjuſted. *Therefore* we conclude, that "this Claſs of Affections are "found and regular, when they prompt us to purſue the *In-*"*tereſt* of *Individuals* in an entire Conſiſtency with the *public* "*Good*," or, in other Words, "when they are duly propor-"tioned to the *Dangers* and *Wants* of others, and to the "various *Relations* in which we ſtand to *Individuals*, or to "*Society*."

Thus we have found by an Induction of Particulars, the *natural Pitch* or *Tenour* of the *different Orders of Affection*, conſidered apart by themſelves. Now as the *Virtue* or *Perfection* of every Creature lies in following its Nature, or acting ſuitably to the juſt Proportion and Harmony of its ſeveral Powers; therefore, "the VIRTUE of a Creature endow'd "with ſuch Affections as *Man*, muſt conſiſt in obſerving, or "acting agreeably to their *natural Pitch and Tenour.*" Let this ſuffice at leaſt for its firſt rude Sketch.

Balance of Affection.

But, as there are no independent Affections in the Fabric of the Mind, no Paſſion that ſtands by itſelf, without ſome Relation to the reſt, we cannot pronounce of any one conſidered APART, that it is either *too ſtrong*, or *too weak.* Its Strength and juſt Proportion muſt be meaſured, not only by its Subſerviency to its own immediate End, but by the Reſpect it bears to the whole Syſtem of Affection. Therefore, we ſay a Paſſion is *too ſtrong*, not only when it defeats its own End, but when it impairs the Force of other Paſſions, which are equally neceſſary to form a *Temper of Mind*, ſuited to a certain *Oeconomy*, or *State*; and *too weak*, not merely on account of its Inſufficiency to anſwer its End, but becauſe it cannot ſuſtain its *Part* or *Office*, in the Balance of the whole Syſtem. Thus the *Love of Life* may be *too ſtrong*, when it takes from the *Regard* due to one's Country, and will not allow one bravely to encounter Dangers, or even Death on its Account. Again, the *Love of Fame* may be *too weak*, when it throws down the Fences which render Virtue more ſecure, or weakens the Incentives which make it more active and public-ſpirited.

Limits of

If it be aſked, "How far may the Affections "towards private Good or Happineſs be in-"dulged?"

How conformable to Reaſon.

That ſuch an Ornament of the Mind, and ſuch a Conduct of its Powers and Paſſions will ſtand the Teſt of *Reaſon*, cannot admit of any Diſpute. For, upon a fair Examination into the Conſequences of Things, or the Relations and Aptitudes of *Means* to *Ends*, *Reaſon* evidently demonſtrates, and *Experience* confirms it, that, "To have our *defenſive* "*Paſſions* duly proportioned to our *Dangers*, is the ſureſt way "to avoid or get clear of them, and obtain the Security we "ſeek after."—"To proportion our *private Paſſions* to our "*Wants*, is the beſt Means to ſupply them;—and, to adapt "our *public Affections* to our *ſocial Relations*, and the *Good* of "others, is the moſt effectual Method of fulfilling *one*, and "procuring the *other*." In this Senſe therefore, *Virtue* may be ſaid to be a "*Conduct* conformable to *Reaſon*," as Reaſon diſcovers an apparent *Aptitude* in ſuch an *Order* and *Oeconomy* of Powers and Paſſions, to anſwer the End for which they are *naturally* formed.

Connection between Affections and Ends, not the Idea of Moral Obligation.

If the Idea of *Moral Obligation* is to be deduced merely from this *Aptitude* or *Connection* between certain Paſſions, or a certain Order and Balance of Paſſions, and certain Ends obtained, or to be obtained by them, then is *Reaſon* or *Reflection*, which perceives that Aptitude or Connection, the proper Judge of *Moral Obligation*; and on this Suppoſition it may be defined, as hath been done by ſome, the Connection between the *Affection* and the *End*, or which is the ſame thing, between the *Action* and the *Motive*; for the *End* is the *Motive*, or the *final Cauſe*, and the *Affection* is the *Action*, or its immediate, natural Cauſe. A Man, from mere Self-Love, may be induced to fulfil that Obligation, which is founded on the Connection between the *defenſive* Paſſions and their *Ends*, or the *private* Paſſions and their *Ends*; becauſe in that Caſe his own Intereſt will prompt him to indulge them in the due Proportion required. But if he has no Affections which point beyond himſelf, no Principle but *Self-love*, or ſome ſubtle Modification of it, what ſhall intereſt him in the Happineſs of others, where there is no Connection between it and his own; or what Senſe can he have of *Moral Obligation* to promote it? Upon this Scheme therefore, without public or ſocial Affection there could be no *Motive*, and conſequently no Moral Obligation to a beneficent, diſintereſted Conduct.

But

But if the mere Connection between certain Paſſions, or a certain Order of Paſſions, and certain Ends, are what conſtitutes, or gives us the Idea of *Moral Obligation*, then why may not the Appoſiteneſs of any Temper or Conduct, nay, of any Piece of Machinery to obtain its End, form an equally ſtrict *Moral Obligation?* For the Connection and Aptitude are as ſtrong and invariable in the latter Inſtances as in the former. But as this is confounding the moſt obvious Differences of things, we muſt trace the Idea of *Moral Obligation* to another and a more natural Source.

Idea of it from Experience.

Let us appeal therefore to our inmoſt Senſe and Experience, "How we ſtand affected to thoſe "different Sets of Paſſions, in the juſt Meaſure "and Balance of which we found a right Tem-"per to conſiſt." For this is entirely a Matter of Experience, in which we muſt examine as in any other natural Enquiry, "What are the genuine Feelings and Ope-"rations of Nature, and what Affections or Symptoms of "them appear in the given Inſtance."

Why the defenſive Paſſions approved.

The DEFENSIVE Paſſions, as *Anger* and *Fear*, give us rather Pain than Pleaſure, yet we cannot help feeling them when provoked by Injury, or expoſed to Harm. We account the Creature imperfect that wants them, becauſe they are neceſſary to his Defence. Nay we ſhould in ſome meaſure condemn ourſelves, did we want the neceſſary Degree of *Reſentment* and *Caution*. But if our *Reſentment* exceeds the Wrong received, or our *Caution* the Evil dreaded, we then *blame* ourſelves for having over-acted our Part. Therefore, while we are in Danger, to be totally deſtitute of them we reckon a *blameable Defect*, and to feel them in a juſt, *i. e.* neceſſary Meaſure, we *approve*, as ſuited to the Nature and Condition of ſuch a Creature as Man. But our Security obtained, to continue to indulge them, we not only *diſapprove* as *hurtful*, but *condemn* as *unmanly*, *unbecoming*, and *mean ſpirited*: Nor will ſuch a Conduct afford any ſelf-approving Joy, when we coolly reflect upon it.

Why the private Paſſions approved.

With regard to the PRIVATE Paſſions, ſuch as *Love of Life*, *Pleaſure*, *Eaſe*, and the like, as theſe aim at private Good, and are neceſſary to the Perfection and Happineſs of the Individual, we ſhould reckon any Creature *defective*, and even *blameable*, that was deſtitute of them. Thus, we condemn the Man who imprudently ruins his Fortune, impairs his Health, or expoſes his Life; we not only pity him as an un-

fortunate Creature, but feel a kind of *Moral Indignation* and Contempt of him, for having made himſelf ſuch. On the other hand, though a diſcreet Self-regard does not attract our Eſteem and Veneration, yet we *approve* of it in ſome Degree, in an higher and different Degree from what we would regard a well-contrived Machine, as neceſſary to conſtitute a finiſhed Creature, nay to complete the virtuous Character, and as exactly ſuited to our preſent indigent State. There are ſome Paſſions reſpecting private Good, towards which we feel higher Degrees of Approbation, as the *Love of Knowledge*, of *Action*, of *Honour*, and the like. We eſteem them as Marks of an ingenuous Mind, and cannot help thinking the Character in which they are wanting, remarkably ſtupid, and in ſome Degree *immoral*.

Why the public.

With regard to the SOCIAL Affections, as *Compaſſion*, *natural Affection*, *Friendſhip*, *Benevolence*, and the like, we approve, admire, and love them in ourſelves, and in all in whom we diſcover them, with an Eſteem and Approbation, if not different in kind, yet ſurely far ſuperior in degree to what we feel towards the other Paſſions. Theſe we reckon neceſſary, juſt, and excellently fitted to our Structure and State; and the Creature which wants them we call defective, ill conſtituted, a kind of Abortion. But the *public* Affections we eſteem as ſelf-worthy, originally and eternally amiable. We approve and congratulate ourſelves in proportion as we indulge them, and reckon thoſe deſerving of our Eſteem and Friendſhip who do ſo.

Diſtinction between the ſocial and calm Affections.

But among the *ſocial* Affections, we make an obvious and conſtant Diſtinction, *viz.* between thoſe particular Paſſions, which urge us with a ſudden Violence, and uneaſy kind of Senſation, to purſue the Good of their reſpective Objects, as *Pity*, *natural Affection*, and the like; and thoſe calm diſpaſſionate Affections and Deſires, which prompt us more ſteadily and uniformly, to promote the Happineſs of others. The former we generally call *Paſſions*, to diſtinguiſh them from the other Sort, which go more commonly by the Name of *Affections*, or *calm Deſires*. The *firſt* kind we approve indeed and delight in, but we feel ſtill higher Degrees of Approbation and moral Complacence towards the *laſt*, and towards all Limitation of the particular Inſtincts, by the Principle of *univerſal Benevolence*. The more Objects the calm Affections take in, and the worthier theſe are, their Dignity riſes in proportion, and with this

our Approbation keeps an exact Pace. A Character, on the other hand, which is quite diveſted of theſe public Affections, which feels no Love for the Species, but inſtead of it, entertains Malice, Rancour, and Ill-will, we reckon totally immoral and unnatural.

Such then are the Sentiments and Diſpoſitions we feel, when theſe ſeveral Orders of Affection paſs before the mental Eye.

Moral Obligation.

Therefore, "that State in which we feel ourſelves moved, in the manner above deſcribed, towards thoſe Affections and Paſſions, as they come under the Mind's Review, and in which we are inſtantaneouſly and independently of our Choice or Volition, prompted to a *correſpondent* Conduct, we call a "State of MORAL OBLIGATION." Let us ſuppoſe, for Inſtance, a Parent, a Friend, a Benefactor, reduced to a Condition of the utmoſt Indigence and Diſtreſs, and that it is in our Power to give them immediate Relief. To what Conduct are we *obliged?* What *Duty* does Nature dictate and require in ſuch a Caſe? Attend to Nature, and Nature will tell, will tell with a Voice irreſiſtibly audible and commanding to the *human Heart*, with an Authority which no Man can ſilence without being ſelf-condemned, and which no Man can elude but at his Peril; "That immediate Relief OUGHT to "be given." Again, let a Friend, a Neighbour, or even a Stranger, have lodged a *Depoſit* in our Hands, and after ſome time reclaim it, no ſooner do theſe Ideas of the Confidence repoſed in us, and of Property not *transferred*, but *depoſited*, occur, than we immediately and unavoidably feel, and recognize the OBLIGATION to reſtore it. In both theſe Caſes, we ſhould condemn and even loath ourſelves, if we acted otherwiſe, as having done, or omitted doing what we *ought* not, as having acted beneath the Dignity of our Nature; — contrary to our moſt intimate Senſe of *Right* and *Wrong*; — we ſhould accuſe ourſelves as *guilty* of Ingratitude, Injuſtice, and Inhumanity, — and be conſcious of deſerving the Cenſure, and therefore dread the Reſentment of all rational Beings. — But in complying with the *Obligation*, we feel Joy and Self-approbation, — are conſcious of an inviolable Harmony between our Nature and Duty, and think ourſelves entitled to the Applauſe of every impartial Spectator of our Conduct.

Moral Obligation.

To *deſcribe* therefore what we cannot perhaps *define*, a *State* of MORAL OBLIGATION, is "that State in which a Creature, endued with

" ſuch *Senſes*, *Powers*, and *Affections* as *Man*, would con-
" demn himſelf, and think he deſerved the Condemnation of
" all others, ſhould he refuſe to fulfill it, but would approve
" himſelf, and expect the Approbation of all others upon com-
" plying with it."

Moral Agent. And we call him a MORAL AGENT, who is in ſuch a *State*, or is ſubject to *Moral Obligation*.

Therefore as Man's *Structure* and *Connections* often ſubject him to ſuch a State of *Moral Obligation*, we conclude that *he* is a MORAL AGENT. But as Man may ſometimes act without *knowing* what he does, as in Caſes of *Frenzy* or *Diſeaſe*, or in many *natural Functions*; or knowing what he does, he may act without *Choice* or *Affection*, as in Caſes of *Neceſſity* or *Compulſion*; therefore to denominate an Action *Moral*, i. e. *approveable*, or *blameable*, it muſt be done *knowingly* and *willingly*, or *from Affection* and *Choice*. " A *morally good*
" *Action* then is to fulfill a *Moral Obligation* knowingly and
" willingly." And a *morally bad Action*, or an *immoral Action*, is " to violate a *Moral Obligation* knowingly and wil-
" lingly." The propoſed Brevity of the Enquiry will not admit of entering into the minuter Diſtinctions of Actions.

Moral Action good and bad.

Moral Character and Temper good and bad. As not an *Action*, but a *Series of Actions* conſtitute a CHARACTER; as not an *Affection*, but a *Series of Affections* conſtitute a Temper, and as we denominate Things by the groſs, *à fortiori*, or by the Qualities which chiefly prevail in them, therefore we call that a " *morally good Cha-*
" *racter*, in which a *Series of morally good Actions* prevail;"
and that a " *morally good Temper*, in which a *Series of morally*
" *good Affections* have the Aſcendant." A bad Character and bad Temper are the Reverſe. But where the above-mentioned *Order* or *Proportion* of Paſſions is maintained, there a *Series* of *morally good Affections and Actions* will prevail. THEREFORE, " to maintain that Order and Proportion, is to have a
" *morally good Temper and Character*." But a " *morally good*
" *Temper and Character*, is MORAL RECTITUDE, INTE-
" GRITY, VIRTUE, or the COMPLETION OF DUTY."

How we come by the Idea of Moral Obligation. If it be aſked after all, " How we come by
" the Idea of *Moral Obligation* or *Duty?*" We may anſwer, that we come by it in the ſame Way as by our other *original* and *primary* Perceptions. We receive them all from Nature,

or

or the great Author of Nature. For this Idea of *Moral Obligation*, is not a Creature of the Mind, or dependent on any previous Act of Volition, but ariſes on certain Occaſions, or when certain other Ideas are preſented to the Mind, as neceſſarily, inſtantaneouſly, and unavoidably, as *Pain* does upon too near an Approach to the Fire, or *Pleaſure* from the Fruition of any Good. It does not, for inſtance, depend on our Choice, whether we ſhall feel the *Obligation* to ſuccour a diſtreſſed Parent, or to reſtore a Depoſit entruſted to us, when it is recalled. We cannot call this a COMPOUND Idea made up of one or more ſimple Ideas. We may indeed, nay we muſt, have ſome Ideas antecedent to it, *e. g.* that of a Parent—in Diſtreſs—of a Child,—able to relieve,—of the Relation of one to the other,—of a Truſt,—of Right, *&c.* But none of theſe Ideas conſtitute the Perception of *Obligation*. This is an Idea quite diſtinct from, and ſomething ſuperadded to, the Ideas of the Correlatives, or the Relation ſubſiſting between them. Theſe indeed, by a Law of our Nature, are the Occaſion of ſuggeſting it, but they are as totally different from it, as Colours are from Sounds. By Senſe of Reflection we perceive the Correlatives, our Memory recalls the Favours or Depoſit we received, the various Circumſtances of the Caſe are Matters of Fact or Experience; but ſome delicate inward *Organ* or *Power*, or call it what we pleaſe, does, by a certain inſtantaneous Sympathy, antecedent to the cool Deductions of Reaſon, and independent of previous Inſtruction, Art, or Volition, *perceive* the *Moral Harmony*, the *living*, *irreſiſtible Charms of Moral Obligation*, which immediately intereſts the correſpondent Paſſions, and prompts us to fulfill its awful Dictates.

The Uſe of Reaſon in Moral Caſes.

We need not apprehend any Danger from the Quickneſs of its Deciſions, nor be frightened, becauſe it looks like *Inſtinct*, and has been called ſo. Would we approve one for deliberating long, or reaſoning the Matter much at leiſure, whether he ſhould relieve a diſtreſſed Parent, feed a ſtarving Neighbour, or reſtore the Truſt committed to him? Should we not ſuſpect the Reaſoner of Knavery, or of very weak Affections to Virtue? We employ *Reaſon*, and worthily employ it, in examining the Condition, Relations, and other Circumſtances of the Agent or Patient, or of thoſe with whom either of them are connected, or, in other words, the *State of the Caſe*: And in complicated Caſes, where the Circumſtances are many, it may require no ſmall Attention to find the true State of the Caſe; but when the

Relations of the Agent or Patient, and the Circumſtances of the Action are obvious, or come out ſuch after a fair Trial, we ſhould ſcarce approve him who demurs on the Obligation to that Conduct which the Caſe ſuggeſts. Thus, ſuppoſe one to depoſit with us a Sword, which he comes afterwards to reclaim, but in ſuch Circumſtances, ſuppoſe of Frenzy or Melancholy, as give us good Ground to ſuſpect that he will uſe it to the Hurt of others, or of himſelf. In ſuch a Caſe it belongs to *Reaſon* or *Prudence*, coolly to weigh every Circumſtance, the Condition of the Proprietor, the Conſequences of reſtoring the Depoſit, and the like; nor ſhould we on that Suppoſition, condemn the heſitating about the reſtoring it; but let the Proprietor return to himſelf, the Obligation to Reſtitution being now apparent, we ſhould juſtly ſuſpect the Demurrer of ſomething criminal or knaviſh.

Inſtinct conſidered.

As to that Objection againſt this original Perception of *Moral Obligation*, taken from its being an Inſtinct or neceſſary Determination of our Nature; are not the Perceptions or Determinations of Reaſon equally neceſſary? Does not every intuitive Perception or Judgment neceſſarily extort our Aſſent, when the Agreement or Diſagreement of the Ideas which are compared is perceived? *Inſtinct* indeed has been conſidered, as ſomething relative merely to bodily *Senſe* and *Appetite*, a mere brutal Senſation or Impulſe, in which the Mind, or our ſublimer Powers have no Part; and therefore it is a Term that has been thought obnoxious to great Exceptions in Morals; but is a moral Power of Perception, or a moral Determination, the worſe for being interwoven with the very Frame, and Conſtitution of our Nature, for being inſtantaneous, uniform and ſteady in its Operations or Deciſion? Why ſhould ſuch a Divine Inſtinct be thought leſs rational, leſs ſuitable to the Dignity of the Mind, than thoſe intuitive Perceptions which are converſant about abſtract Truths, and ariſe neceſſarily and inſtantaneouſly from the obvious Relations of Things? And if Reaſon with all its Sagacity may ſometimes err, nay often does, why ſhould any other Power of Perception be thought infallible, or be condemned as brutal and irrational if it is not?

Pleaſure, not the Idea of Obligation.

From what has been ſaid it is evident, that it is not the Pleaſure, or agreeable Senſations which accompany the Exerciſe of the ſeveral Affections, nor thoſe conſequent to the Actions, that conſtitute MORAL OBLIGATION, or excite in us the Idea of it. That Pleaſure is poſterior

to

to the Idea of Obligation, and frequently we are obliged, and acknowledge ourſelves under an Obligation, to ſuch Affections and Actions as are attended with Pain; as in the Trials of Virtue, where we are obliged to ſacrifice private to public Good, or a preſent Pleaſure to a future Intereſt. We have Pleaſure in ſerving an aged Parent, but it is neither the Perception nor Proſpect of that Pleaſure, which gives us the Idea of Obligation to that Conduct.

Therefore, when we uſe theſe Terms, *Obligation*, *Duty*, *Ought*, and the like, they ſtand for a ſimple Idea, an original uncompounded Feeling or Perception of the human Mind, as much as any Idea whatſoever, and can no more be defined than any other ſimple Idea; and this Perception is not a Creature of the Mind, but a Ray emaning directly from the Father of Lights, a fair genuine Stamp of his Hand, who impreſſed every vital and original Energy on the Mind, or if we chuſe rather to ſay, who ordained thoſe Laws of Perception, by which moral Forms attract and charm us with an irreſiſtible Power.

But becauſe the learned Dexterity of human Wit has ſo marvellouſly puzzled a plain and obvious Subject, we ſhall conſider ſome of thoſe ingenious Theories by which Moraliſts have deduced and explained *Moral Obligation*.

SECT. III.

Various Hypotheſes concerning Moral Obligation.

FROM the Induction which has been made, we ſhall be able to judge with more Advantage of the different Hypotheſes which have been contrived to deduce the Origin of *Moral Obligation*.

Hobbes, who ſaw Mankind in an unfavourable Attitude, involved in all the Diſtraction and Miſery of a civil War, ſeems to have taken too narrow and partial a View of our Nature, and has therefore drawn it in a very odious and uncomfortable Light. Next to the Deſire of Self-preſervation, he makes the *governing* Paſſions in Man, the *Love of Glory*, and of *Power*, and from theſe, by an arbitrary, unnatural, and unſupported Hypotheſis, contrary to common Experience, and common Language, he attempts to deduce all *The Scheme of* Hobbes.

the other Paſſions which inflame the Minds, and influence the Manners of Men. All Men, ſays he, are by Nature equal, that is to ſay, according to his own Explanation, the weakeſt can do as much Miſchief as the ſtrongeſt; all deſire, and have an equal Right to the ſame Things, and want to excel each other in *Power* and *Honour*; but as it is impoſſible for all to poſſeſs the ſame Things, or to obtain a Pre-eminence in Power and Honour, hence muſt ariſe mutual Conteſts, a natural Paſſion to invade the Property, and level the Power and Character of each other, and to raiſe and ſecure themſelves againſt the Attempts of others.* This State of Things, in which every Man having a Right to every thing, has likewiſe a Right to prevent his Neighbour by Force or Fraud; he tells us, muſt naturally produce a State of War and mutual Carnage. In ſuch a State, he adds, nothing can be called unjuſt or unlawful; for he who has a Right to the End, has alſo a Right to the only Means of obtaining or ſecuring it, which, according to him, are Force or Fraud. And this State he calls the State of Nature.——But our ſhrewd Philoſopher ſubjoins, that Men being aware that ſuch a State muſt terminate in their own Deſtruction, agreed to ſurrender their private unlimited Right into the Hands of the Majority, or ſuch as the Majority ſhould appoint, and to ſubject themſelves for the future to common Laws, or to common Judges or Magiſtrates. In conſequence of this Surrender, and of this mutual Compact or Agreement, they are ſecured againſt mutual Hoſtilities, and *bound* or *obliged* to a peaceable and good Behaviour; ſo that it is no longer lawful or juſt (the good Man means ſafe and prudent) to invade and encroach on another. For this would be contrary to Compact, and a Violation of his Promiſe and Faith.——Therefore as there could be no Injuſtice previous to this Compact, ſo the Compact, and it alone, muſt be the Origin of *Juſtice*, the Foundation of *Duty* and *Moral Obligation*. This is our ſubtle Philoſopher's Scheme!

But one may aſk him, What Obligation is a Man under to keep his Promiſe, or ſtand to his Compact, if there be no Obligation, no Moral Tie diſtinct from that Promiſe, and that Compact, independent of and previous to both? If there is none, they muſt prove a mere Rope of Sand, and Men are left as looſe and unſociable as ever, as much Barbarians and Wolves as before their Union. But if there is a diſtinct and previous Obligation to Fidelity, Honour, and a Re-

* *Vid.* Hob. *de Cive*, cap. i, ii, *&c. and Leviath.* c. xvii, *&c.*

a Regard to one's Engagements, then Right and Wrong, Juſtice and Injuſtice are antecedent to Compact.—Perhaps he will tell us that the Neceſſity of the Caſe, or a Regard to our own Safety, which is included in that of the Public, obliges us to adhere to our Engagements. We may be compelled or puniſhed for Breach of Faith by thoſe, to whom we transfer our Rights. *Force*, or *ſuperior Strength* of the Majority to controul or puniſh the Refractory, is, no doubt, the true Origin of the Obligation, if he will ſpeak out, and *Self-love* is its only *Judge* and *Meaſure*. And if this be all, then what Obligation is a Man under to Gratitude, Charity, Friendſhip, and all theſe Duties of Humanity, which fall not under the Cognizance or Controul of Law? What Obligations to private Veracity, Honeſty, and Fidelity, when a Man may be a Knave with Safety? That Scheme, therefore, which ſets us looſe from ſuch Obligations, and involves us in ſuch Abſurdities, muſt be itſelf both abſurd and wicked. That State of Nature which it ſuppoſes as its Foundation, is a mere Chimera, a Viſion of his own Brain, which, from the Condition and Nature of the Creature, the Growth of a Family, the Riſe of a Tribe or Clan, we have no Reaſon to believe ever ſubſiſted; therefore the Superſtructure which he has raiſed on that Foundation, is fictitious and chimerical. *Hobbes* took it for granted, that all Men were Knaves or Fools, and wanted to dreſs up a Syſtem of Government, agreeable to the corrupt Taſte of the reigning Powers, and to the Genius of a moſt diſſolute Court, a Government contrived to make a ſmall Part of Mankind Tyrants, and all the reſt Slaves. He meaſured *Virtue* by *mere Utility*, and while he pretends to be the firſt that diſcovered this Connection, and gave the only true Reaſon for the Practice of Honeſty, he ſeems to have miſunderſtood, or wilfully overlooked its true Nature, and its inſeparable Connection with the Perfection and Happineſs of the Individual.

Scheme of Conformity to the Divine Will.

Another Set of Moraliſts eſtabliſh Morals upon the Will or poſitive Appointment of the Deity, and call *Virtue* a Conformity to that Will, or Appointment. All *Obligation*, they ſay, ſuppoſes one who *obliges*, or who has a *Right* to preſcribe, and can reward the Obedient, and puniſh the Diſobedient. This can be none but our *Creator*. His *Will* therefore is our *Law*, which we are *bound* to obey. And this they tell us is only ſufficient to bind, or oblige ſuch imperfect and corrupt Creatures as we are, who are but feebly moved with a Senſe of the Beauty and Excellency of

Virtue,

Virtue, and ſtrongly ſwayed by Paſſion, or Views of Intereſt.

That *Virtue*, or ſuch a Conduct of the Paſſions as hath been above deſcribed, is agreeable to the *Will of God*, is evident beyond Diſpute, as that Conduct, or Scheme of Duty is pointed out to us by our Inward Structure, and as that Inward Structure is the Effect of the Will or Appointment of the Deity. Whatever therefore is agreeable, or correſpondent to our Inward Structure, muſt likewiſe be agreeable, or correſpond to the Will of God. So that all the *Indications*, or *Sanctions* of our Duty, which are declared, or enforced by our Structure, are, and may be, conſidered as *Indications*, or *Sanctions* of the Will of our Creator. If theſe Indications, through Inattention to, or Abuſe of the Structure, prove inſufficient to declare; or if theſe Sanctions, through the Weakneſs or Wickedneſs of Men, prove inſufficient to enforce Obedience to the Divine Will, and the Deity is pleaſed to ſuperadd new Indications, or new Sanctions; theſe additional Indications or Sanctions cannot, and are not ſuppoſed by the Aſſertors of this Scheme, to add any new Duty, or new Moral Obligation; but only a new and clearer Promulgation of our Duty, or a new and ſtronger Sanction or Motive from Intereſt, to perform that Duty, and to fulfil that Obligation to which we were bound before. It makes no Difference, as to the Matter of Obligation, after what manner the Will of our Creator is enforced, or declared to us, whether by Word or Writ, or by certain inward Notices and Determinations of our own Mind, ariſing according to a neceſſary Law of our Nature.——— By whichever of theſe Ways we ſuppoſe the Divine Will intimated to us, the firſt Queſtion that naturally occurs to us is, "Why we are obliged to obey the Divine Will?" If it be anſwered, that he is our *Superior*, and can reward, or puniſh us, as we are obedient or refractory; this is reſting *Obligation* upon the Foot of *Intereſt*. If we ſay that he is our *Creator*, and *Benefactor*, and we *ought* to *obey* our *Creator*, and be *grateful* to our *Benefactor*, this refers our Obligation to an inward Senſe, or Perception that *Obedience* is due to one's *Creator*, *Gratitude* to one's *Benefactor*. Upon what other Principle but this, can we connect thoſe *Relations*, and that Obedience and Gratitude, unleſs we recur to the Principle of Self-intereſt juſt now mentioned? If the Scheme of Duty and *Moral* Obligation be thought to reſt on too ſlight a Foundation, when built on Moral Perception, and the Affections of our Nature, becauſe theſe are found inſufficient to bind,

er to compel Men to their Duty, we fear the ſame
on will militate againſt this Scheme, ſince all the De-
ns and Sanctions of the Divine Will have not hitherto
ir due Effect in producing a thorough and univerſal
ation.

n ſome ſpeak of the *Will of God*, as the *Rule of Duty*,
not certainly mean a blind arbitrary Principle of
but ſuch a Principle as is directed by Reaſon, and
d by Wiſdom, or a Regard to certain Ends in Pre-
to others. Unleſs we ſuppoſe ſome Principle in the
nalogous to our *Senſe* of *Obligation*, ſome antece-
ffection, or Determination of his Nature, to prefer
nds before others, we cannot aſſign any ſufficient, or
ny poſſible Reaſon why he ſhould will one thing more
other, or have any Election at all. Whatever there-
he Ground of his Choice, or Will, muſt be the Ground
ation, and not the Choice, or Will itſelf.——That
ſo, appears farther from the common Diſtinction which
and Philoſophers make between *Moral* and *Poſitive*
nds and Duties. The *former* they think *obligatory*,
ent to Will, or at leaſt to any Declaration of it;
er obligatory only in conſequence of a poſitive Ap-
nt of the Divine Will. But what Foundation can
e for this Diſtinction, if all Duty and Obligation be
the Reſult of mere Will?

ore refined Tribe of Philoſophers have at-
l to lay the Foundation of Morals much
and on a more large and firm Bottom,
ie *Natures* and *Reaſons*, the *Truth* and
of Things. *Senſes* and *Affections*, they
are vague and precarious; and though
re not, yet irrational Principles of Action,
nſequently very improper Foundations, on which to
e *eternal* and *immutable* Obligations of Morality.
ore they talk much of the abſtract Natures and Rea-
Things, of eternal Differences, unalterable Relations,
s and Unfitneſſes reſulting from thoſe Relations; and
heſe eternal Reaſons, Differences, Relations, and their
ient Fitneſſes, they ſuppoſe *Moral Obligation* to ariſe.
duct agreeable to them, or, in other words, "*A Con-
ity to Truth* they call *Virtue*, and the Reverſe they call
."*

Scheme of Truth, of the Natures and Reaſons of Things.

We

* See Dr. *Clarke*, *Woolaſton*, and other eminent Writers.

We perceive the Natures of Things by different Organs, or Senſes, and our Reaſon acts upon them when ſo perceived, and inveſtigates thoſe Relations which ſubſiſt between them, or traces what is true, what is falſe, what may be affirmed, and what denied concerning them. Thus by Senſe or Experience we perceive the Nature or Character of a *Benefactor*, and of a *Beneficiary* (if one may ſo expreſs it) and upon comparing them together, a third Idea is ſuggeſted to us, which we call the Relation between the Benefactor and Beneficiary; we likewiſe perceive the Foundation of that Relation, ſome Benefit received. But are any of theſe Ideas that which we underſtand by the *Moral Duty* or *Obligation*, the Idea of *Gratitude* due to the *Benefactor* from the *Beneficiary*? This is evidently a diſtinct Perception, obvious to ſome *Senſe*, *Organ*, or *Power* of Perception, but not the Reſult of *Reaſoning*. Suppoſe farther, the *Benefactor* in Priſon for a ſmall Debt, and the *Beneficiary* in Affluence, *Reaſon* may ſuggeſt to the *latter*, that a little Share of his Wealth beſtowed on the *former*, will make a conſiderable Change in his State to the better; but will Reaſon, mere Reaſon, without ſome Degree of Affection, prompt him to ſuch a well-placed Charity? Or will the Perception of his Relation to his *Benefactor* and of the *Benefit* received, lead him to *approve* ſuch a Conduct, unleſs we ſuppoſe a Senſe or Feeling quite different from that Perception of the intervening Relation, and of the Ground of that Relation? We might, therefore, perceive all the poſſible Reaſons, Relations, and Differences of Things, and yet be totally indifferent to this or that Conduct, unleſs we were endued with ſome Senſe or Affection, by which we approved and loved *one*, or diſapproved and diſliked the *other* Conduct. *Reaſon* may perceive a *Fitneſs*, or *Aptitude* to a certain *End*, but without ſome *Senſe* or *Affection* we cannot propoſe, or indeed have any Idea of an *End*, and without an *End* we cannot conceive any *Inducement* to Action.—Therefore before we can underſtand the Natures, Reaſons, and Fitneſſes of Things, which are ſaid to be the Foundation of Morals, we muſt know what Natures are meant, to what Ends they are fitted, and from what Principles or Affections they are prompted to act, otherwiſe we cannot judge of the Duty required, or of the Conduct becoming that Being whom we ſuppoſe under *Moral Obligation*. But let the Natures be once given, and the Relations which ſubſiſt among them be aſcertained, we can then determine what Conduct will be obligatory to ſuch Natures, and adapted to their Condition and Oeconomy. And to the

ſame

ſame Natures placed in the ſame Relations, the ſame Conduct will be eternally, and invariably proper and obligatory.

To call *Morality* a *Conformity* to *Truth*, gives no Idea, no Characteriſtic of it, but what ſeems equally applicable to *Vice*. For whatever Propoſitions are predicable of *Virtue*, as, that it flows from good Affection, or is agreeable to the Order of our Nature,—tends to produce Happineſs,—is beheld with Approbation, and the like, the contrary Propoſitions are equally true, and may be equally predicated of Vice. What is Truth, but the Conformity of Propoſitions to the Nature or Exiſtence and Reality of Things? And has not *Vice* its Nature, its Exiſtence, its Adjuncts and Conſequences, as much as *Virtue*? And are not Propoſitions conformable to them *true* Propoſitions? And therefore is not a Conduct ſuited to, or ſignificative of ſuch true Propoſitions, a *true* Conduct, or a Conduct conformable to Truth? Could we underſtand a Watch-maker, a Painter, or a Statuary talking of their reſpective Arts, ſhould they tell us, that a Watch, a Picture, or a Statue were good when they were *true*, or done according to Truth, and that their Art lay in adjuſting them to Truth? Would they not ſpeak more intelligibly, and more to the Purpoſe, if they ſhould explain to us their End or Uſe, and in order to that, ſhew us their Parts both together and ſeparately, the Bearings and Proportions of thoſe Parts, and their Reference to that End? Is not ſuch a Detail likewiſe neceſſary to underſtand Human Nature, its Duty and End? Will the Truth, the abſtract Natures and Reaſons, the eternal Relations and Fitneſſes of Things, form ſuch a Detail? But ſuppoſe it could, yet what *Degree* of Virtue, or Vice, does Truth admit? *Truth* is a ſimple, uniform, invariable Thing, incapable of Intenſion or Remiſſion. But *Virtue* and *Vice* admit of almoſt infinite Degrees and Variations, and therefore cannot conſiſt of, or be founded upon, a Thing which admits of none. For ſuch as is the Foundation, ſuch muſt the Superſtructure be.

Objection againſt the Scheme in Section 2.

But it is ſaid, that, to deduce *Moral Obligation* from the Conſtitution of our Nature, and an Inward Senſe, is to render it exceedingly precarious and mutable, becauſe Man might have been differently conſtituted, ſo as to approve of Treachery, Malice, Cruelty, and then another, or a quite contrary Train of Duties would have been required, or *obligatory*.

The Anſwer.

That Human Nature might have been otherwiſe conſtituted than it is, is perhaps true, but that it could have been better conſtituted, conſidering

conſidering its preſent State and Circumſtances, may be juſtly queſtioned under his Government, who does every thing in Number, Weight, and Meaſure, and who has poured Wiſdom and Beauty over all his Works. The little Sketch that hath been given of our Nature, ſhews that it is admirably adapted to our preſent Condition, and the various Connections we ſuſtain: We could not have ſubſiſted, or at leaſt not have ſubſiſted ſo well, in ſuch a Condition, nor maintained ſuch Connections, without that ſucceſſive Train of Powers and Paſſions with which we are endued. Without them, or with a contrary Set, we muſt have been miſerable. And he who ordained the Condition and ſettled the Connections, muſt likewiſe have ordained that Conduct of Powers, and that Balance of Paſſions which is exactly proportioned to that Condition and to thoſe Connections. Such an Order of Creatures being ſuppoſed, and ſuch a Condition with ſuch Connections being given, ſuch a Conduct as has been traced out, muſt be eternally and invariably *obligatory* to ſuch Creature ſo placed and ſo connected. Had Man been a different Creature, and placed in different Circumſtances, a Spider for inſtance, or an Hound, a different Set of Duties would have then become him; the Web, the Vigilance, the rapacious Conduct of the *former*; the Sagacity, the Love of Game and Swiftneſs of the *latter*, and the Satisfaction of Appetite, the Propagation and Love of Offspring common to both, would have fulfilled the Deſtinations of his Nature, and been his proper Buſineſs and Oeconomy. But as *Man* is not only a *Senſible*, an *Active*, and a *Social*, but a *Rational*, a *Political*, and a *Religious* Creature, he has a nobler Part to act, and more numerous and more important Obligations to fulfil. And if afterwards, in any future Period of his Duration, he ſhall be advanced to a ſuperior Station, and take in wider Connections, the Sphere of his Duty, and the Number and Weight of his Obligations, muſt increaſe in proportion. Had a Creature therefore, ſituated and connected as *Man*, been formed with Diſpoſitions to approve of Treachery, Malice, or Cruelty, ſuch a Temper or Conſtitution would have been evidently deſtructive of his Happineſs. Now if we imagine the Deity prefers ſome Ends to others, ſuppoſe the Happineſs of his Creatures to their Miſery, he muſt likewiſe prefer the Means moſt adapted to thoſe Ends. *Therefore*, ſuppoſing the Deity neceſſarily Wiſe, and Good, he could not have implanted in us ſuch Diſpoſitions, or, in other words, could not have annexed Feelings of Approbation to a Conduct ſo incongruous to our State, and ſo ſubverſive of our Happineſs.

ſappineſs. Conſequently amidſt the infinite Variety of poſ-ible Conſtitutions, Vice could never have been *approvable*, nd of courſe, not *obligatory*.—THEREFORE, "The Scheme ' of Human Nature above propoſed reſts on the ſame Founda-' tion as the Divine Wiſdom and Goodneſs, and the Scheme ' of *Moral* Obligation erected upon it, muſt be equally im-' mutable and immortal." And that the Deity is wiſe and ood, ſupremely and univerſally ſo, Nature cries aloud through ll her Works.

Another Objection.

But it is farther objected againſt this Scheme, hat Mankind differ ſtrangely in their *Moral* Sen-iments, ſome approving Treachery, *Revenge* and *Cruelty*, nay whole Nations approving Theft, the Expoſition of Infants, and many other Crimes of as black a Dye: therefore the *Moral* Senſe, recommended as the Judge of Morals, is either not univerſal, or a very uncertain and fallacious Rule.

The Anſwer.

As to that Diverſity of Opinion, or rather of Practice, concerning *Moral* Obligation, we can no more conclude from thence, that the internal *Perception*, or *Moral Senſe* of *Right* and *Wrong*, is not an Univerſal, or Certain Standard or Rule of judging in Morals, than we can infer from the different Taſtes in Painting, or different Opinions concerning the Merit of the ſame Performances, that there is no Standard in Painting, no certain and uncontroverted Principle of the Art. In the laſt, Men appeal from particular Taſtes, Manners and Cuſtoms, to Nature, as the ſupreme Standard, and acknowledge that the Perfection of the Art lies in the juſt Imitation of it; but from a Diverſity in Organs, in Capacity, in Education, from Favour, Prejudice, and a thouſand other Circumſtances, they differ in applying the Rule to particular Inſtances. The ſame thing holds in Morals; Men admit the *Rule in general*, and appeal to our *common Nature* and to *common Senſe*, nay ſeldom differ or judge wrong in impartial Caſes. When at any time they miſapply, or deviate from the received Standard, a fair and ſatisfying Account may be given of their Variations.

We have heard of States, which allowed Theft, and the Expoſition of lame or deformed Children. But in thoſe States there was hardly any Property, all things were common, and to train up a hardy, ſhifting, ſagacious Youth, was thought far preferable to the Security of any private Property. The Expoſition of their Children was eſteemed the Sacrifice of private Social Affection to the Love of the Public. We need

not

not doubt but they loved their Children; but as ſuch Children were accounted uſeleſs, and even hurtful to a Commonwealth formed entirely upon a warlike Plan, they reckoned it gallant to prefer the *public*, to the ſtrongeſt and moſt endearing *private* Intereſt. So that their Miſtake lay in ſuppoſing a real Competition between thoſe Intereſts, not in diſavowing, or diveſting themſelves of parental Affection; a Miſtake into which they would not have fallen, had they enjoyed a more natural, refined, and extenſive Syſtem of Policy. In ſome Countries they put their aged decrepit Parents to Death, but is it becauſe they condemn, or want natural Affection? No; but they think it the beſt Proof of their Affection to deliver them from the Miſeries of old Age, which they do not believe can be counter-balanced by all its Enjoyments. In ſhort, neither Cruelty, nor Ingratitude, nor any Action under an immoral Form, are ever approved. Men *reaſon wrong only* about the Tendency, the Conſequences, Materials, and other Circumſtances of the Action. It may appear in different Lights or with different Sides, according to the different Views and Opinions of the Conſequences which the Moral Spectator or Actor has, or according to his Paſſions, Habits and other Circumſtances; but ſtill the general Rule is recognized, the Moral Quality or Species is admired, and the Deviation from the Rule condemned and diſliked. Thus, Inhumanity is condemned by all, yet Perſecution for the ſake of religious Opinions is approved, and even practiſed by ſome under the Notion of Compaſſion to the *Souls* of the Sufferers, or to thoſe of others, who, they think, can only *be thus ſecured* againſt the Infection of Hereſy; or under the Form of Zeal for the Honour of God, a *Divine* Principle, to which they are perſuaded whatever is *Human* ought to ſtoop: though to every large and well-informed Mind ſuch a Conduct muſt appear moſt barbarous and inhuman, with how pious a Name ſoever it may be ſanctified. — No Man approves *Malice*, but to hate a wicked Character, or to reſent an Injury, are deemed equally conducive to Private Security, and to Public Good, and appear to the Actors even in their moſt outrageous Sallies, a noble Contempt of Vice, or a generous Indignation againſt Wrong. The Highwayman condemns Injuſtice, and reſents the pilfering Knavery of a Brother of the Trade; but to excuſe himſelf, he ſays, Neceſſity has no Law, an honeſt Fellow muſt not ſtarve, he has tried the Way of Induſtry, but in vain; the prime Law of Self-preſervation muſt be obeyed.— From theſe, and the like Topics, it appears no hard Matter to account

ıccount for the Diverſity of Opinions concerning *Moral Obli-*
ation, *viz.* from Miſtakes about the Tendency of Actions, the
Nature of Happineſs, or of public and private Good, from the
›artial Connections Men have formed, from falſe Opinions of
Religions and the Will of God, and from violent Paſſions,
vhich make them miſapply the Rule, or not attend to the Mo-
al Quality as they ought. Therefore by ſeparating what is
oreign, and appealing to the true Standard of Nature, as aſcer-
ained above, and by obſerving the Reaſons of thoſe Variations
vhich we find ſometimes among Individuals, we plainly re-
:ognize the Stability of the Rule of Moral Obligation, and diſ-
:ern the Univerſality of the Senſe; and the Variations, inſtead
›f being Exceptions againſt either, rather concur in confirming
me, and demonſtrating the *other*.

From the whole, we may conclude, that the Nature, the Reaſons, and the Relations of Things would never have ſuggeſted to us this ſimple Idea of *Moral Obligation* without a proper Senſe ſuſceptible of it. It is interwoven with the very Frame and Conſtitution of our Nature, and by it *We* are in the ſtricteſt Senſe a LAW to Ourſelves. Nor is it left to us to trace out this Law by the cool or ſlow Deductions of *Reaſon*; far leſs is this Law the Reſult of ſubtle and metaphyſical Enquiries into the abſtract Natures and Relations of Things; we need not aſcend to Heaven to bring it down from thence, nor deſcend into the Depths to ſeek it there; it is *within* us; ever preſent with us, ever active and incumbent on the Mind, and engraven on the Heart in the fair and large Signatures of *Conſcience*, *Natural Affection*, *Compaſſion*, *Gratitude*, and *Univerſal Benevolence*. *Concluſion.*

SECT. IV.

The FINAL *Cauſes of our* Moral *Faculties of* Perception *and* Affection.

WE have now taken a *General* Proſpect of MAN and of his MORAL POWERS and CONNECTIONS, and on theſe erected a Scheme of DUTY, or MORAL OBLIGATION, which ſeems to be confirmed by *Experience*, conſonant to *Reaſon*, and approved by his moſt inward, and moſt ſacred *The Survey propoſed.*

ſacred *Senſes*. It may be proper in the next Place to take a more particular View of the *Final Cauſes* of thoſe delicate *Springs* by which he is *impelled* to Action, and of thoſe *Clogs* by which he is reſtrained from it.—By this Detail we ſhall be able to judge of their Aptitude to anſwer their End, in a Creature endued with his *Capacities*, ſubject to his *Wants*, expoſed to his *Dangers*, and ſuſceptible of his *Enjoyments*; and from thence, we ſhall be in a condition to pronounce concerning the *End* of his *whole Structure*, its *Harmony* with its *State*, and conſequently its Subſerviency to anſwer the great and benevolent Intentions of its Author.

Inward Anatomy of the Senſes of the Mind.

In the *Anatomy* of this inward and more elaborate *Subject*, it will not be neceſſary to purſue every little Fibre, nor to mark the nicer Complications and various Branches of the more minute Parts. It ſhall ſuffice to lay open the larger Veſſels and ſtronger Muſcling of this Divine Piece of Workmanſhip, and to trace their Office and Uſe in the Diſpoſition of the Whole.

The Supreme Being has ſeen fit to blend in the Whole of Things a prodigious Variety of diſcordant and contrary Principles, *Light* and *Darkneſs*, *Pleaſure* and *Pain*, *Good* and *Evil*. There are multifarious Natures, *higher* and *lower*, and many intermediate ones between the wide-diſtant Extremes. Theſe are differently ſituated, variouſly adjuſted, and ſubjected to each other, and all of them ſubordinate to the Order and Perfection of the Whole. We may ſuppoſe *Man*, placed as in a Center amidſt thoſe innumerable Orders of Beings, by his *Outward* Frame drawing to the *Material* Syſtem, and by his *Inward* connected with the INTELLECTUAL, or *Moral*, and of courſe affected by the Laws which govern both, or affected by that Good and that Ill which reſult from thoſe Laws. In this infinite Variety of *Relations* with which he is ſurrounded, and of *Contingencies* to which he is liable, he feels ſtrong Attractions to the *Good*, and violent Repulſions or Averſions to the *Ill*. But as Good and Ill are often blended, and wonderfully complicated one with the other; as they ſometimes immediately produce and run up into each other, and at other times lie at great Diſtances, yet by means of intervening Links, introduce one another; and as theſe Effects are often brought about in conſequence of hidden Relations, and general Laws, of the Energy of which he is an incompetent Judge, it is eaſy for him to miſtake *Good* for *Evil*, and *Evil* for *Good*, and conſequently he may be frequently attracted by ſuch things as are deſtructive, or repel

pel ſuch as are ſalutary. Thus, by the tender and complicated Frame of his Body, he is ſubjected to a great Variety of Ills, to *Sickneſs*, *Cold*, *Heat*, *Fatigue*, and innumerable *Wants*. Yet his Knowledge is ſo narrow withal, and his Reaſon ſo weak, that in many Caſes he cannot judge, in the way of Inveſtigation, or Reaſoning, of the Connections of thoſe Effects with their reſpective Cauſes, or of the various latent Energies of Natural Things. He is therefore informed of this Connection by the Experience of certain *Senſes*, or *Organs of Perception*, which, by a mechanical inſtantaneous Motion, feel the *Good* and the *Ill*, receiving Pleaſure from *one*, and Pain from the *other*. By theſe, without any Reaſoning, he is taught to attract, or chuſe what tends to his Welfare, and to repel and avoid what tends to his Ruin. Thus, by his Senſes of *Taſte* and *Smell*, or by the *Pleaſure* he receives from certain kinds of Food, he is admoniſhed which agree with his Conſtitution, and by an oppoſite Senſe of *Pain*, he is informed which ſorts diſagree, or are deſtructive of it; but is not by means of this inſtructed in the inward Natures and Conſtitutions of Things.

Uſe of Appetites and Paſſions.

Some of thoſe Senſes are armed with ſtrong Degrees of *Uneaſineſs* or *Pain*, in order to urge him to ſeek after ſuch Objects as are ſuited to them. And theſe reſpect his more immediate and preſſing *Wants*; as the Senſe of *Hunger*, *Thirſt*, *Cold*, and the like; which, by their painful Importunities, compel him to provide *Food*, *Drink*, *Raiment*, *Shelter*. Thoſe Inſtincts by which we are thus prompted with ſome kind of Commotion or Violence to attract and purſue *Good*, or to repel and avoid *Ill*, we call *Appetites* and *Paſſions*. By our Senſes then we are informed of what is *good* or *ill* to the *Private Syſtem*, or the *Individual*; and by our *Private Appetites* and *Paſſions* we are impelled to one, and reſtrained from the other.

Man's outward State.

In conſequence of this Machinery and the great Train of Wants to which our Nature ſubjects us, we are engaged in a continued Series of Occupations, which often require much Application of Thought, or great bodily Labour, or both. The Neceſſaries of Life, Food, Cloaths, Shelter, and the like, muſt be provided; Conveniencies muſt be acquired to render Life ſtill more eaſy and comfortable. In order to obtain theſe, Arts, Induſtry, Manufactures, and Trade are neceſſary. And to ſecure to us the peaceable Enjoyment of their Fruits, Civil Government, Policy, and Laws muſt be contrived, and

the various Buſineſs of public Life carried on: Thus while Man is concerned and buſied in making Proviſion, or obtaining Security for himſelf, he is by degrees engaged in Connections with a Family, Friends, Neighbours, a Community, or a Common-wealth. Hence ariſe new Wants, new Intereſts, new Cares, and new Employments. The Paſſions of one Man interfere with thoſe of another. Intereſts are oppoſed. Competitions ariſe, contrary Courſes are taken. Diſappointments happen, Diſtinctions are made, and Parties formed. This opens a vaſt Scene of Diſtraction and Embarraſſment, and introduces a mighty Train of Good and Ill, both Public and Private. Yet amidſt all this Confuſion and Hurry, Plans of Action muſt be laid, Conſequences foreſeen, or guarded againſt, Inconveniencies provided for; and frequently particular Reſolutions muſt be taken, and Schemes executed, without Reaſoning or Delay.

Proviſions for it.

Now what Proviſion has the Author of our Nature made for this neceſſitous Condition? How has he fitted the Actor, Man, for playing his Part in this perplexed and buſy Scene? He has admoniſhed the Individual of *private Good* and *private Ill* by peculiar *Senſes*, and urged him by keen *Inſtincts* to purſue the former and repel the latter. But what Proviſion, what Security has the Deity made for the Community, the Public? Who, or what ſhall anſwer for his good Behaviour to it?

By public Senſes and Paſſions.

Our ſupreme Parent, watchful for the Whole, has not left himſelf without a Witneſs here neither, and hath made nothing imperfect, but all things are double one againſt another. He has not left Man to be informed, only by the cool Notices of Reaſon, of the *Good* or *Ill*, the *Happineſs* or *Miſery* of his Fellow-creatures. He has made him ſenſible of their Good and Happineſs, but eſpecially of their Ill and Miſery, by an immediate Sympathy, or quick *Feeling* of *Pleaſure* and of *Pain*.

Pity.

The latter we call PITY or COMPASSION. For the former, though every one, who is not quite diveſted of Humanity, feels it, in ſome degree, we have not got a Name, unleſs we

Congratulation.

call it CONGRATULATION, or *joyful* SYMPATHY, or that *Good-humour*, which ariſes on ſeeing others pleaſed or happy. Both theſe Feelings have been called in general the PUBLIC or COMMON SENSE, Κοινοσυνμο νόημ, by which we feel for others, and

and are intereſted in their Concerns as really, though perhaps leſs ſenſibly than in our own.

When we ſee our Fellow-creatures unhappy through the Fault or Injury of others, we feel RESENTMENT or INDIGNATION againſt the *unjuſt* Cauſers of that Miſery. If we are conſcious that *it* has happened through our Fault or *injurious* Conduct, we feel SHAME; and both theſe Claſſes of *Senſes* and *Paſſions*, regarding *Miſery* and *Wrong*, are armed with ſuch ſharp Senſations of *Pain*, as not only prove a powerful Guard and Security to the *Species* or *Public Syſtem*, againſt thoſe Ills it may, but ſerve alſo to leſſen or remove thoſe Ills it does, ſuffer. Compaſſion draws us out of ourſelves to bear a Part of the Misfortunes of others, powerfully ſolicits us in their Favour, melts us at Sight of their Diſtreſs, and makes us in ſome degree unhappy till they are relieved from it. It is peculiarly well adapted to the Condition of Human Life, becauſe, as an eminent Moraliſt * obſerves, it is much more, and oftener in our Power to do Miſchief than Good, and to prevent or leſſen Miſery than to communicate poſitive Happineſs; and therefore it is an admirable Reſtraint upon the more *ſelfiſh* Paſſions, or thoſe violent Impulſes that carry us to the Hurt of others. *Reſentment.*

There are other particular *Inſtincts* or *Paſſions*, which intereſt us in the Concerns of others, even while we are moſt buſy about our own, and which are ſtrongly attractive of *Good*, and repulſive of *Ill* to them. Such are *Natural Affection*, *Friendſhip*, *Love*, *Gratitude*, *Deſire of Fame*, *Love of Society*, of *one's Country*, and others that might be named. Now as the *Private* Appetites and Paſſions were found to be armed with ſtrong Senſations of Deſire and Uneaſineſs, to prompt Man the more effectually to ſuſtain Labours, and encounter Dangers in purſuit of thoſe Goods that are neceſſary to the Preſervation and Welfare of the Individual, and to avoid thoſe Ills which tend to his Deſtruction; in like manner it was neceſſary, that this *other* Claſs of Deſires and Affections ſhould be prompted with as quick Senſations of Pain, not only to counteract the Strength of their Antagoniſts, but to engage us in a virtuous Activity for our Relations, Families, Friends, Neighbours, Country. Indeed our *Senſe* of *Right* and *Wrong* will admoniſh us that it is our *Duty*, and *Reaſon* and *Experience* farther aſſure us, that it is both our *Intereſt* and beſt *Public Affections.*

* *Vid.* Butler's *Serm. on Compaſſion.*

Security to promote the Happineſs of others; but that *Senſe*, that *Reaſon*, and that *Experience*, would frequently prove but weak and ineffectual Prompters to ſuch a Conduct, eſpecially in Caſes of Danger and Hardſhip, and amidſt all the Importunities of Nature, and that conſtant Hurry in which the *Private* Paſſions involve us, without the Aid of thoſe particular *kind* Affections, which mark out to us particular Spheres of Duty, and with an agreeable Violence engage and fix us down to them.

Contraſt or Balance of Paſſions.

It is evident therefore, that thoſe two Claſſes of Affection, the *Private* and *Public*, are ſet one againſt the other, and deſigned to controul and limit each other's Influence, and thereby to produce a juſt Balance in the Whole *. In general, the violent Senſations of Pain or Uneaſineſs which accompany Hunger, Thirſt, and the other private Appetites, or too great Fatigue of Mind as well as of Body, prevent the Individual from running to great Exceſſes in the Exerciſe of the higher Functions of the Mind, as too intenſe Thought, in the Search of Truth, violent Application to Buſineſs of any kind, and different Degrees of Romantic Heroiſm. On the other hand, the *finer Senſes* of *Perception*, and thoſe *generous Deſires* and *Affections* which are connected with them, the *Love of Action*, of *Imitation*, of *Truth*, *Honour*, *Public Virtue*, and the like, are wiſely placed in the oppoſite Scale, in order to prevent us from ſinking into the Dregs of the *Animal* Life, and debaſing the Dignity of Man below the Condition of Brutes. So that by the mutual Reaction of thoſe oppoſite Powers, the bad Effects are prevented that would naturally reſult from their acting ſingly and apart, and the good Effects are produced which each are ſeverally formed to produce.

Contraſt or Balance of Public and Private Paſſions.

The ſame wholſome Oppoſition appears likewiſe in the particular Counterworkings of the *Private* and *Public* Affections one againſt the other. Thus *Compaſſion* is adapted to counterpoiſe the *Love of Eaſe*, of *Pleaſure*, and of *Life*, and to diſarm, or to ſet Bounds to *Reſentment*; and *Reſentment* of Injury done to ourſelves, or to our Friends who are dearer than ourſelves, prevents an effeminate *Compaſſion* or *Conſternation*, and gives us a noble Contempt of Labour, Pain and Death. *Natural Affection*, *Friendſhip*,

* *Vid.* Hutch. *Conduct of the Paſſions, Treat.* 1. §. 2.

idſhip, Love of one's Country, nay, *Zeal* for any particu- irtue, are frequently more than a Match for the whole n of *Selfiſh* Paſſions. On the other hand, without that ıate over-ruling Paſſion of *Self-love*, and thoſe private es which are connected with it, the *ſocial* and *tender ıcts* of the Human Heart would degenerate into the ıſt Dotage, the moſt torturing Anxiety, and downright ıy.

ıt not only are the different Orders or Claſ- ıf Affection Checks one upon another, but ons of the ſame Claſſes are mutual Clogs. ı, how many are withheld from the violent ages of *Reſentment* by *Fear?* And how is *Fear* controuled in its Turn, while ty Wrongs awaken a mighty *Reſentment?* The *Private* ons often interfere, and therefore moderate the Violence ıch other; and a calm SELF-LOVE is placed at their , to direct, influence, and controul their particular At- ons and Repulſions. The *Public* Affections likewiſe in one the other; and all of them are put under the roul of a calm diſpaſſionate BENEVOLENCE, which t in like manner to direct and limit their particular Mo- — Thus, moſt part, if not all the Paſſions have a ıld Aſpect, and ſerve a twofold End. In *one* View they be conſidered as POWERS, impelling Mankind to a cer- Courſe, with a *Force* proportioned to the *apprehended ent* of the *Good* they aim at. In *another* View they ap- as WEIGHTS, balancing the Action of the *Powers*, :ontrouling the Violence of their Impulſes. By means eſe *Powers* and *Weights* a natural POISE is ſettled in the an Breaſt by its all-wiſe Author, by which the Creature is tolerably ſteady and regular in his Courſe, amidſt that ty of Stages through which it muſt paſs.

Contraſts among thoſe of the ſame Claſſes.

t this is not all the Proviſion which God nade for the Hurry and Perplexity of the in which Man is deſtined to act. Amidſt infinite Attractions and Repulſions towards :e and public Good and Ill, Mankind either ıt often foreſee the *Conſequences* or *Ten- s* of all their Actions towards one or other eſe, eſpecially where thoſe Tendencies are intricate and different ways, or thoſe Conſequences remote and licated; or though, by careful and cool Enquiry and e Improvement of their rational Powers, they might them out, yet diſtracted as they are with Buſineſs,

Particular Perceptions or Inſtincts of Approbation.

amuſed with Trifles, diſſipated by Pleaſure, and diſturbed by Paſſion, they either have, or can find, no leiſure to attend to thoſe Conſequences, or to examine how far this or that Conduct is productive of private or public Good on the whole. Therefore were it left entirely to the ſlow and ſober Deductions of Reaſon to trace thoſe Tendencies and make out thoſe Conſequences, it is evident that, in many particular Inſtances, the Buſineſs of Life muſt ſtand ſtill, and many important Occaſions of Action be loſt, or perhaps the groſſeſt Blunders be committed. On this Account the Deity, beſides that general Approbation which we beſtow on every degree of *kind* Affection, has moreover implanted in Man many particular *Perceptions*, or *Determinations*, to approve of certain *Qualities* or *Actions*, which, in effect, tend to the Advantage of Society, and are connected with private Good, though he does not always ſee that Tendency, nor mind that Connection. And theſe *Perceptions*, or *Determinations* do, without Reaſoning point out, and antecedent to Views of Intereſt, prompt to a Conduct beneficial to the *Public*, and uſeful to the *Private* Syſtem. Such is that *Senſe of Candor and Veracity*, that *Abhorrence of Fraud and Falſhood*, that *Senſe of Fidelity*, *Juſtice*, *Gratitude*, *Greatneſs of Mind*, *Fortitude*, *Clemency*, *Decorum*; and that *Diſapprobation of Knavery*, *Injuſtice*, *Ingratitude*, *Meanneſs of Spirit*, *Cowardice*, *Cruelty*, and *Indecorum*, which are natural to the Human Mind. The *former* of thoſe Diſpoſitions, and the Actions flowing from them, are approved, and thoſe of the latter kind diſapproved by us, even abſtracted from the View of their Tendency, or Conduciveneſs to the Happineſs or Miſery of others, or of ourſelves. In one we diſcern a *Beauty*, a *ſuperior Excellency*, a *Congruity* to the *Dignity* of Man; in the other a *Deformity*, a *Littleneſs*, a *Debaſement* of Human Nature.

Others of an inferior Order.

There are other Principles alſo, connected with the Good of Society, or the Happineſs and Perfection of the Individual, though that Connection is not immediately apparent, which we behold with real Complacency and Approbation, though perhaps inferior in Degree, if not in Kind, ſuch as *Gravity*, *Modeſty*, *Simplicity of Deportment*, *Temperance*, *prudent Oeconomy*; and we feel ſome degree of Contempt and Diſlike where they are wanting, or where the oppoſite Qualities prevail. Theſe and the like *Perceptions* or *Feelings* are either different *Modifications* of the *Moral Senſe*, or *ſubordinate* to it, and plainly ſerve the ſame important Purpoſe, being expeditious *Monitors* in the ſeveral Emergencies

Emergencies of a various and diſtracted Life, of what is *right*, what is *wrong*, what is to be *purſued*, and what *avoided*; and, by the pleaſant or painful Conſciouſneſs which attends them, exerting their Influence, as powerful *Prompters* to a ſuitable Conduct.

Their general Tendencies.

From a ſlight Inſpection of the above-named Principles, it is evident they all carry a friendly Aſpect to *Society*, and the *Individual*, and have a more immediate, or a more remote Tendency to promote the *Perfection* or *Good* of both. This Tendency cannot be always foreſeen, and would be often miſtaken, or ſeldom attended to by a weak, buſy, ſhort-ſighted Creature, like Man, both raſh and variable in his Opinions, a Dupe to his own Paſſions, or to the Deſigns of others, liable to Sickneſs, to Want, and to Error. Principles therefore which are ſo nearly linked with *private Security* and *public Good*, by directing him, without operoſe Reaſoning, where to find *one*, and how to promote the *other*, and by prompting him to a Conduct conducive to both, are admirably adapted to the Exigencies of his preſent State, and wiſely calculated to obtain the Ends of univerſal Benevolence.

Paſſions fitted to a State of Trial.

It were eaſy, by conſidering the Subject in another Light, to ſhew in a curious Detail of Particulars, how wonderfully the Inſide of Man, or that aſtoniſhing Train of *Moral Powers* and *Affections* with which he is endued, is fitted to the ſeveral Stages of that *Progreſſive* and *Probationary* State, through which he is deſtined to paſs. As our Faculties are narrow and limited, and riſe from very ſmall and imperfect Beginnings, they muſt be improved by Exerciſe, by Attention, and repeated Trials. And this holds true, not only of our *Intellectual*, but of our *Moral* and *Active* Powers. The former are liable to Errors in Speculation, the latter to Blunders in Practice, and both often terminate in Misfortunes and Pains. And thoſe Errors and Blunders are generally owing to our Paſſions, or to our too forward and warm *Admiration* of thoſe partial *Goods* they naturally purſue, or to our *Fear* of thoſe partial *Ills* they naturally repel. Thoſe Misfortunes therefore lead us back to conſider where our Miſconduct lay, and whence our Errors flowed, and conſequently are ſalutary Pieces of Trial which tend to enlarge our Views, to *correct* and *refine* our Paſſions, and conſequently improve both our *Intellectual* and *Moral* Powers. —— Our Paſſions then are the rude Materials of our Virtue, which Heaven has given us to work up, to refine and poliſh into

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an harmonious and divine Piece of Workmanſhip. They furniſh out the whole Machinery, the Calms and Storms, the Lights and Shades of Human Life. They ſhew Mankind in every Attitude and Variety of Character, and give *Virtue* both its Struggles and its Triumphs. To conduct them well in every State is *Merit*; to abuſe or miſapply them is *Demerit*. By them we prove what we are, and by the Habits to which they give Birth, we take our Form and Character for the ſucceſſive Stages of our Life, or any future Period of our Exiſtence.

To a Progreſſive State. The different Sets of *Senſes*, *Powers*, and *Paſſions*, which unfold themſelves in thoſe ſucceſſive Stages, are both neceſſary and adapted to that *riſing* and *progreſſive* State. Enlarging Views and growing Connections require new Paſſions and new Habits; and thus the Mind, by theſe continually expanding and finding a progreſſive Exerciſe, riſes to higher Improvements, and puſhes forward to Maturity and Perfection.—But on this we cannot farther inſiſt.

Harmony of our Structure and State. In this beautiful Oeconomy and Harmony of our Structure, both outward and inward, with that State, we may at once diſcern the great Lines of our Duty traced out in the faireſt and brighteſt Characters, and contemplate with Admiration a more auguſt and marvellous Scene of Divine Wiſdom and Goodneſs laid in the Human Breaſt, than we ſhall perhaps find in the whole Compaſs of Nature.

Reſult. "What a Piece of Work is Man! How noble "in Reaſon! How infinite in Faculties! In Form "and Moving how expreſs and admirable! In "Action how like an Angel! In Apprehenſion how like a "God! The Beauty of the World! The Paragon of Animals!"

In what Oeconomy Virtue conſiſts. From this Detail it appears, that MAN, by his Original Frame, is made for a *temperate*, *compaſſionate*, *benevolent*, *active*, and *progreſſive* State. He is ſtrongly *attractive* of the *Good*, and *repulſive* of the *Ills*, which befall others as well as himſelf. He feels the higheſt *Approbation* and *Moral Complacence* in thoſe Affections, and in thoſe Actions which immediately and directly reſpect the *Good* of others, and the higheſt *Diſapprobation* and *Abhorrence* of the contrary. Beſides theſe, he has many particular *Perceptions* or *Inſtincts* of *Approbation*, which though perhaps not of the ſame kind with the others, yet are accompanied with cor-

reſpondent Degrees of Affection, proportioned to their ective Tendencies to the *Public Good.* THEREFORE, acting agreeably to theſe Principles, *Man* acts agreeably his Structure, and fulfils the benevolent Intentions of its thor. But we call a Thing GOOD, when it anſwers its d, and a Creature GOOD, when he acts in a *Conformity* to *Conſtitution.* Conſequently, *Man* muſt be denominated OD or VIRTUOUS, when he acts ſuitably to the *Principles* l *Deſtination* of his Nature. And where his VIRTUE lies, re alſo is his RECTITUDE, his DIGNITY, and PERFEC- ON to be found. And this coincides with the Account of *tue* formerly given, but preſents it in another Attitude, or it in a Light ſomething different.

THE

THE ELEMENTS OF Moral PHILOSOPHY.

BOOK II. SECT. I.

The principal Diſtinctions of Duty or Virtue.

WE have now conſidered the *Conſtitution* and *Connections* of *Man*, and on thoſe erected a general Syſtem of DUTY, or MORAL OBLIGATION, conſonant to *Reaſon*, approved by his moſt ſacred and intimate *Senſe*, ſuitable to his *mixed Condition*, and confirmed by the *Experience* of Mankind. We have alſo traced the FINAL CAUSES of his *Moral Faculties* and *Affections* to thoſe noble Purpoſes they anſwer with regard both to the *private* and the *public Syſtem*.

General Diviſion of Duty.

From this Induction it is evident, that there is *one* Order or Claſs of Duties which *Man* owes to HIMSELF. *Another* to SOCIETY. And a *third* to GOD.

Duties to one's ſelf.

The Duties he owes to HIMSELF are founded chiefly on the DEFENSIVE and PRIVATE Paſſions, which prompt him to purſue whatever tends to *private Good* or *Happineſs*, and to avoid, or ward off whatever tends to *private Ill* or *Miſery*. Among the various Goods which allure and ſolicit him, and the various Ills which attack or threaten him, "To "be intelligent and accurate in ſelecting *one*, and rejecting the *other*, or in preferring the moſt *excellent Goods*, "and avoiding the moſt *terrible Ills*, when there is a Competition among either, and to be diſcreet in uſing the beſt "Means

"Means to attend the *Goods* and avoid the *Ills*, is what we "call PRUDENCE." This, in our *inward* Frame, corresponds to *Sagacity*, or *Quickneſs of Senſe* in our *outward*. —"To proportion our DEFENSIVE *Paſſions* to our *Dangers*, "we call FORTITUDE;" which always implies "a juſt "Mixture of calm Reſentment or Animoſity, and well-go- "verned Caution." And this *Firmneſs of Mind* anſwers to the *Strength* and *Muſcling* of the *Body*.—And "duly to "adjuſt our PRIVATE *Paſſions* to our Wants, or to the re- "ſpective Moment of the Good we affect or purſue, we "call TEMPERANCE;" which does therefore always imply in this large Senſe of the Word, "a juſt Balance or "Command of the Paſſions," and anſwers to the *Health* and *ſound Temperament* of the Body. *

Duties to Society.

The *ſecond Claſs* of *Duties* ariſes from the PUBLIC or SOCIAL *Affections*, "the juſt Har- "mony or Proportion of which to the *Dan-* "*gers* and *Wants* of others, and to the ſeve- "ral *Relations* we bear, commonly goes by the Name of "JUSTICE." This includes the Whole of our Duty to *Society*, to its *Parent*, and the *general Polity* of *Nature*; particularly *Gratitude*, *Friendſhip*, *Sincerity*, *Natural Affection*, *Benevolence*, and the other *ſocial Virtues*: This being the *nobleſt Temper* and *faireſt Complexion* of the Soul, correſponds to the *Beauty* and *fine Proportion* of the Perſon. The Virtues comprehended under the former Claſs, eſpecially *Prudence* and *Fortitude*, may likewiſe be transferred to this; and according to the various Circumſtances in which they are placed, and the more confined or more extenſive Sphere in which they operate, may be denominated PRIVATE, OECONOMICAL, or CIVIL *Prudence*, *Fortitude*, &c. Theſe direct our Conduct with regard to the *Wants* and *Dangers* of thoſe leſſer or greater Circles with which they are connected.

Duties to God.

The *third* Claſs of Duties reſpects the DEITY, and ariſes from the PUBLIC *Affections*, and the ſeveral glorious RELATIONS which he ſuſtains to us, as our *Creator*, *Benefactor*, *Law-giver*, *Judge*, &c.

Method.

We choſe to conſider this *Set* of Duties in the laſt Place, becauſe, tho' *prior*† in Dignity and Excellency, they ſeem to be *laſt* in Order of Time, as thinking it the moſt ſimple and eaſy Method to follow the gradual Progreſs of Nature, as it takes its Riſe from

† *Vid. Tim. Locr. de Anima Mundi.*

from Individuals, and ſpreads through the *ſocial* Syſtem, and ſtill aſcends upwards, till at length it ſtretches to its all-mighty Parent and Head, and ſo terminates in thoſe Duties which are *higheſt* and *beſt*.

Piety. The Duties reſulting from theſe *Relations*, are *Reverence*, *Gratitude*, *Love*, *Reſignation*, *Dependence*, *Obedience*, *Worſhip*, *Praiſe*; which, according to the Model of our finite Capacities, muſt maintain ſome ſort of Proportion to the Grandeur and Perfection of the Object whom we venerate, love and obey. "This PROPORTION or HARMONY, is expreſſed by the general Name of "PIETY or DEVOTION," which is always ſtronger or weaker, according to the greater or leſs apprehended Excellency of its Object. This ſublime Principle of Virtue, is the enlivening Soul which animates the *Moral Syſtem*, and that Cement which binds and ſuſtains the other Duties which *Man* owes to *himſelf* or to *Society*. From hence, as will appear afterwards, *they* derive not only the firmeſt Support, but their higheſt Relief and Luſtre.

Diviſion of Conſcience. This then is the general Temper and Conſtitution of Virtue, and theſe are the principal Lines or Diviſions of Duty. To thoſe good Diſpoſitions, which reſpect the ſeveral Objects of our Duty, and to all Actions which flow from ſuch Diſpoſitions, the Mind gives its Sanction or Teſtimony. And this Sanction or Judgment concerning the Moral Quality, or the Goodneſs of Actions or Diſpoſitions, Moraliſts call CONSCIENCE. When it judges of an Action that is to be performed, it is called an *antecedent* Conſcience; and when it paſſes Sentence on an Action which is performed, it is called a *ſubſequent* Conſcience.

Goodneſs of an Action, The Tendency of an Action to produce Happineſs, or its external Conformity to a Law, is

Material, termed its *material* Goodneſs. But the good Diſpoſitions from which an Action proceeds, or its Conformity to Law in every reſpect, conſtitutes

Formal, its *formal* Goodneſs.

Natural and Moral. Some Moraliſts of no mean Figure, reckon it neceſſary to conſtitute the *formal* Goodneſs of an Action, "that we reflect on the Action "with Moral Complacency and Approbation. "For mere *Affection*, or *a good Temper*, whether it reſpects "others, or ourſelves, they call *natural* or *inſtinctive* Good-"neſs, of which the Brutes are equally capable with Man. "But when that Affection or Temper is view'd with Ap-"probation, and made the Object of a new Affection, "this,

" this, they ſay, conſtitutes MORAL GOODNESS or VIRTUE, " in the ſtrict Senſe of the Word, and is the Characteriſtic of " MORAL or RATIONAL Agents."

Whether Approbation is neceſſary to complete the Idea of Virtue.

It muſt be acknowledged, that Men may be partially good, *i. e.* may indulge ſome kind Affections, and do ſome kind Actions, and yet may be vitious or immoral on the Whole. Thus a Man may be affectionate to his Child, and injurious to his Neighbour; or compaſſionate to his Neighbour, and cruel to his Country; or zealous for his Country, yet inhuman to Mankind. It muſt alſo be acknowledged, that to make every Degree and Act of good Affection the frequent Object of our Attention,—to reflect on theſe with Moral Approbation and Delight,—to be convinced, on a full and impartial Review, that *Virtue* is moſt amiable in itſelf, and attended with the moſt happy Conſequences, is ſometimes a great Support to Virtue, in many Inſtances neceſſary to complete the virtuous Character, and always of uſe to give Uniformity and Stability to virtuous Principles, eſpecially amidſt the numberleſs Trials to which they are expoſed in this mixed Scene of human Life. Yet how many of our Fellow-creatures do we eſteem and love, who perhaps never coolly reflected on the Beauty or fair Proportions of Virtue, or turned it into a Subject of their Moral Approbation and Complacency! Philoſophers, or contemplative Men, may very laudably amuſe themſelves with ſuch charming Theories, and often do contemplate every the minuteſt Trace of Virtue about themſelves, with a parental Fondneſs and Admiration, and by thoſe amiable Images reflected from themſelves, they may perhaps be confirmed in the Eſteem of whatever is honeſt and praiſe-worthy. However, it is not generally among this recluſe Set of Men, that we expect to find the higheſt Flights of Virtue; but rather among Men of Action and Buſineſs, who, through the Prevalence of a natural good Temper, or from generous Affections to their Friends, their Country, or Mankind, are truly and tranſcendently good. Whatever that Quality is which we approve in any Action, and count worthy our Eſteem, and which excites an Eſteem and Love of the Agent, we call the *Virtue*, *Merit*, or *formal Goodneſs* of that Action. And if Actions inveſted with ſuch a Quality, have the Aſcendant in a Character, we call that Character *virtuous* or *good*. Now it is certain, that thoſe Qualities or Principles mentioned above, eſpecially thoſe of the public and benevolent kind, how ſimple, how inſtinctive ſoever, are viewed with Approbation

probation and Love. The very Nature of that Principle we call *Conſcience*, which approves theſe benevolent Affections, and whatever is done through their Influence, intimates that *Virtue* or *Merit* is preſent in the Mind before Conſcience is exerciſed, and that its Office is only to obſerve it there, or to applaud it. For if Virtue is ſomething that deſerves our Eſteem and Love, then it muſt exiſt before *Conſcience* is exerted, or gives its Teſtimony. *Therefore* to ſay that the Teſtimony of Conſcience is neceſſary to the *Being* or *Form* of a virtuous Action, is, in plain Terms, to affirm that *Virtue* is not *Virtue*, till it is reflected on and approved as Virtue. The proper Buſineſs of *Reaſon*, in forming the *virtuous Character*, is to guide the ſeveral Affections of the Mind to their ſeveral Objects, and to direct us to that Conduct, or to thoſe Meaſures of Action, which are the moſt proper Means of acquiring them. Thus, with reſpect to *Benevolence*, which is the *Virtue* of a *Character*, or a principal Ingredient of *Merit*, its proper Object is the *public Good*. The Buſineſs of Reaſon then is to inform us wherein *conſiſts the greateſt public Good*, what Conduct and which Actions are the moſt effectual Means of promoting it. After all, the Motions of the Mind are ſo quick and imperceptible, and ſo complicated with each other, that perhaps ſeldom do any indulge the virtuous or good Affections without an approving Conſciouſneſs; and certainly the more that Virtue is contemplated with Admiration and Love, the more firm and inflexible will the Spectator be in his Attachment to it.

Diviſions of Conſcience.

When the Mind is ignorant or uncertain about the Moment of an Action, or its Tendency to private or public Good, or when there are ſeveral Circumſtances in the Caſe, ſome of which being doubtful, render the Mind dubious concerning the Morality of the Action, this is called a *doubtful* or *ſcrupulous* Conſcience; if it miſtakes concerning theſe, it is called an *erroneous* Conſcience. If the *Error* or *Ignorance* is *involuntary* or *invincible*, the Action proceeding from that *Error*, or from that *Ignorance*, is reckoned *innocent*, or not *imputable*. If the Error or Ignorance is *voluntary* or *affected*, i. e. the Effect of Negligence, or of Affectation and wilful Inadvertence, the Conduct flowing from ſuch Error, or ſuch Ignorance, is *criminal* and *imputable*. Not to follow one's Conſcience, tho' erroneous and ill-informed, is *criminal*, as it is the Guide of Life; and to counteract it, ſhews a depraved and incorrigible Spirit. Yet to follow an erroneous Conſcience is likewiſe criminal, if that Error which miſled

the

Conſcience was the Effect of Inattention, or of any cri-
al Paſſion. *

it be aſked, "How an erroneous Conſcience
all be rectified, ſince it is ſuppoſed to be the
ily Guide of Life, and Judge of Morals?"
anſwer, in the very ſame Way that we
ld rectify *Reaſon*, if at any time it ſhould
e wrong, as it often does, *viz.* By giving it proper and
cient Materials for judging right, *i. e.* by enquiring into
whole State of the Caſe, the Relations, Connections, and
al Obligations of the Actor, the Conſequences, and other
umſtances of the Action, or the Surpluſage of private
ublic Good which reſults, or is likely to reſult, from the
on or from the Omiſſion of it. If thoſe Circumſtances are
y and fully ſtated, the Conſcience will be juſt and impar-
in its Deciſion. For, by a neceſſary Law of our Nature,
pproves, and is well affected to the *Moral Form*; and if it
s to approve of *Vice* or *Immorality*, it is always under the
ion or Maſk of ſome *Virtue*. So that ſtrictly ſpeaking,
s not Conſcience which errs; for its Sentence is always
ormable to the View of the Caſe which lies before it;
is *juſt*, upon the Suppoſition that the Caſe is truly ſuch as
repreſented to it. All the Fault is to be imputed to the
nt, who neglects to be better informed, or who, thro'
akneſs or Wickedneſs, haſtens to paſs Sentence from an
erfect Evidence. Thus, he who perſecutes another for the
: of Conſcience, or a Miſtake in religious Opinion, does
approve of Injuſtice, or Cruelty, any more than his mi-
en Neighbour who ſuffers by it; but, thinking the Seve-
he uſes conformable to the Divine Will, or ſalutary to
Patient, or at leaſt to the Society of the Faithful, whoſe
reſt he reckons far preferable not only to the Intereſt of ſo
l a Part, but to all the vaſt Remainder of Mankind; and
king withal, that Severity is the only Means of ſecuring
higheſt Intereſt, he paſſes a Sentence as juſt, and conſe-
ntial from thoſe Principles, as a Phyſician, who to ſave the
le Body, orders the Amputation of a gangren'd Limb,
king that the only Remedy. Perhaps, in the *latter* Caſe,
bler Practitioner might have accompliſh'd the Cure by a leſs
gerous Operation; and in the *former*, a better Caſuiſt, or
eater Maſter in ſpiritual Medicine, might have contrived a
e, full as ſure, and much more innocent.

How Conſcience is to be rectified.

* *Vid.* Hutcheſ. *Moral Inſtit. Lib.* ii. *cap.* 3.

Having now given the general Diviſions of *Duty* or *Virtue*, which exhibit its different Faces and Attitudes, as it ſtands directed to its reſpective Objects, let us next deſcend into Particulars, and mark its more minute Features and Proportions, as they appear in the Detail of human Life.

SECT. II.

Of Man's Duty to HIMSELF. *Of the Nature of* GOOD, *and the* CHIEF GOOD.

Diviſions of Good.

EVERY Creature, by the Conſtitution of his Nature, is determined to love himſelf, to purſue whatever tends to his Preſervation and Happineſs, and to avoid whatever tends to his Hurt and Miſery. Being endued with Senſe and Perception, he muſt neceſſarily receive *Pleaſure* from ſome Objects, and *Pain* from others. Thoſe Objects which give Pleaſure are called *good*, and thoſe which give Pain, *evil*. To the former he feels that Attraction or Motion we call *Deſire*, or *Love*: to the latter that Impulſe we call *Averſion*, or *Hatred*. To Objects which ſuggeſt neither Pleaſure nor Pain, and are apprehended of no Uſe to procure one, or ward off the other, we feel neither *Deſire* nor *Averſion*, and ſuch Objects are called *indifferent*. Thoſe Objects which do not of themſelves produce Pleaſure or Pain, but are the *Means* of procuring either, we call *uſeful* or *noxious*. Towards them we are affected in a ſubordinate manner, or with an *indirect* and *reflective*, rather than a *direct* and *immediate* Affection. All the original and particular Affections of our Nature, lead us out to, and ultimately reſt in, the firſt kind of Objects, *viz.* thoſe which give immediate Pleaſure, and which we therefore call *good*, *directly ſo*. The calm Affection of *Self-love* alone is converſant about ſuch Objects as are only *conſequentially good*, or merely uſeful to ourſelves.

Moral Good.

But beſides thoſe Sorts of Objects which we call good, merely and ſolely as they give Pleaſure, or are Means of procuring it, there is an higher and nobler Species of Good, towards which we feel that peculiar Movement we call *Approbation* or *Moral Complacency*, and which *we therefore* denominate *Moral Good*. Such

Such are our Affections, and the conſequent Actions to them. The Perception of this is, as has been already obſerved, quite diſtinct in kind from the Perception of other Species; and though it may be connected with *Pleaſure* or *Advantage* by the benevolent Conſtitution of Nature, yet it conſtitutes a Good independent of that Pleaſure and that Advantage, and far ſuperior not in Degree only, but in Dignity to both. The *other*, viz. the *Natural* Good, conſiſts in obtaining thoſe Pleaſures which are adapted to the peculiar Senſes and Paſſions ſuſceptible of them, and is as various as are thoſe Senſes and Paſſions. *This*, viz. the *Moral Good*, lies in the right Conduct of the ſeveral Senſes and Paſſions, or their juſt Proportion and Accommodation to their reſpective Objects and Relations; and this is of a more ſimple and invariable kind.

Human Happineſs.

By our ſeveral Senſes we are capable of a great Variety of pleaſing Senſations. Theſe conſtitute diſtinct Ends, or Objects ultimately purſuable for their own Sake. To theſe Ends, or ultimate Objects, correſpond peculiar Appetites or Affections, which prompt the Mind to purſue them. When theſe Ends are attained, there it reſts, and looks no farther. Whatever therefore is purſuable, not on its own Account, but as ſubſervient or neceſſary to the Attainment of ſomething elſe that is intrinſically valuable or for its own Sake, be that Value ever ſo great, or ever ſo ſmall, we call a *Mean*, and not an *End*. So that *Ends*, and *Means*, conſtitute the *Materials*, or the very *Eſſence* of our *Happineſs*. Conſequently Happineſs, *i. e. human* Happineſs, cannot be one ſimple uniform Thing, in Creatures conſtituted as we are, with ſuch various Senſes of Pleaſure, or ſuch different Capacities of Enjoyment. Now the ſame Principle, or Law of our Nature, which determines us to purſue any one End, or Species of Good, prompts us to purſue every other End, or Species of Good of which we are ſuſceptible, or to which our Maker has adapted an original Propenſion. But amidſt the great Multiplicity of *Ends* or *Goods*, which form the various Ingredients of our Happineſs, we perceive an evident *Gradation* or *Subordination*, ſuited to that Gradation of *Senſes*, *Powers*, and *Paſſions*, which prevails in our mixed and various Conſtitution, and to that aſcending Series of Connections, which open upon us in the different Stages of our progreſſive State.

Gradation of Goods.

Thus the Goods of the *Body*, or of the *external Senſes*, ſeem to hold the loweſt Rank in this Gradation or Scale of Goods. Theſe we have in common with the Brutes; and though many Men are brutiſh enough to purſue the Goods of the Body with a more than brutal Fury; yet when at any time they come in Competition with Goods of an higher Order, the unanimous Verdict of Mankind, by giving the laſt the Preference, condemns the firſt to the meaneſt Place. Goods conſiſting in exterior ſocial Connections, as *Fame*, *Fortune*, *Power*, *Civil Authority*, ſeem to ſucceed next, and are chiefly valuable as the Means of procuring *natural* or *moral* Good, but principally the latter. Goods of the *Intellect* are ſtill ſuperior, as *Taſte*, *Knowledge*, *Memory*, *Judgment*, &c. The higheſt are *moral* Goods of the Mind, directly and ultimately regarding ourſelves, as *Command of the Appetites* and *Paſſions*, *Prudence*, *Fortitude*, *Benevolence*, &c. Theſe are the great Objects of our Purſuit, and the principal Ingredients of our Happineſs. Let us conſider each of them, as they riſe one above the other in this natural Series or Scale, and touch briefly on our Obligations to purſue them.

The Brevity of this Work will not permit us minutely to weigh the *real* or *comparative* Moment of the different kinds of Goods, which offer themſelves to the Mind, or to ſcrutinize the particular Pleaſures of which we are ſuſceptible either as to *Intenſeneſs*, or *Duration*, and the Enjoyment of which depends on Accidents rather than our own Attention and Induſtry. We ſhall therefore confine ourſelves to the Conſideration of ſuch Goods as lie properly within our own Sphere, and being the Objects of our Attention and Care, fall within the Verge of *Duty*.

Goods of the Body.

Thoſe of the Body are *Health*, *Strength*, *Agility*, *Hardineſs*, and *Patience of Change*, *Neatneſs* and *Decency*.

Good Health.

Good Health, and a regular eaſy Flow of Spirits, are in themſelves ſweet natural Enjoyments, a great Fund of Pleaſure, and indeed the proper Seaſoning which gives a Flavour and Poignancy to every other Pleaſure. The Want of Health unfits us for moſt Duties of Life, and is eſpecially an Enemy to the ſocial and human Affections, as it generally renders the unhappy Sufferer peeviſh and ſullen, diſguſted at the Allotments of Providence, and conſequently apt to entertain ſuſpicious and gloomy Sentiments of its Author. It obſtructs the free Exerciſe and full Improvement of our Reaſon, makes

Burthen to our Friends, and uſeleſs to Society. Whereas ninterrupted Enjoyment of good Health, is a conſtant e of good Humour, and good Humour is a great Friend ennefs and Benignity of Heart, enables us to encounter rious Ills and Diſappointments of Life with more Cou- or to ſuſtain them with more Patience, and in ſhort, ces much, if we are otherwiſe duly qualified, to our our Part, in every Exigency of Life, with more Firm- Conſiſtency, and Dignity. Therefore it imports us much ſerve and improve an Habit or Enjoyment, without which other external Entertainment is taſteleſs, and moſt other ntages of little Avail. And this is beſt done ſtrict Temperance in Diet and Regimen, gular Exerciſe, and by keeping the Mind : and unruffled by violent Paſſions, and un- ed by intenſe and conſtant Labours, which y impair, and gradually deſtroy, the ſtrongeſt Conſtitu-

How pre- ſerved.

ength, *Agility*, *Hardineſs*, and *Patience of ge*, ſuppoſe Health, and are unattainable with- t; but they imply ſomething more, and are ſary to guard it, to give us the perfect Uſe of and Limbs, and to ſecure us againſt many otherwiſe un- able Ills. The Exerciſe of the neceſſary manual, and of of the elegant, Arts of Life, depends on Strength Agility of Body; perſonal Dangers, private and public gers, the Demands of our Friends, our Families and ntry, require them; they are neceſſary in War, and orna- al in Peace; fit for the Employments of a Country and a n Life, and they exalt the Entertainments and rſions of both. They are chiefly obtained oderate and regular Exerciſe.

Strength, Agility, &c.

How attain- ed.

w are ſo much raiſed above Want and De- ence, or ſo exempted from Buſineſs and , as not to be often expoſed to Inequalities Changes of Diet, Exerciſe, Air, Climate, other Irregularities. Now what can be ſo effectual cure one againſt the Miſchiefs ariſing from ſuch un- able Alterations, as Hardineſs, and a certain Verſatility onſtitution, which can bear extraordinary Labours, and it to great Changes, without any ſenſible ſineſs or bad Conſequences. This is beſt ned, not by an over-great Delicacy and te Attention to Forms, or by an invariable larity in Diet, Hours, and Way of Living, but rather

Patience of Change.

How attain- ed.

by a bold and direct Attitude of Regimen. Beſides, Devotions from eſtabliſhed Rules and Forms of Living, if kept within the Bounds of Sobriety and Reaſon, are friendly to Thought and original Sentiment, animate the dull Scene of ordinary Life and Buſineſs, and agreeably ſtir the Paſſions, which ſtagnate or breed ill Humour in the Calms of Life.

Neatneſs, *Cleanlineſs*, and *Decency*, to which we now add *Dignity of Countenance*, and *Demeanour*, &c. ſeem to have ſomething refined and moral in them. At leaſt we generally eſteem them Indications of an orderly, genteel, and well-governed Mind, conſcious of inward Worth, or the Reſpect due to one's Nature. Whereas *Naſtineſs*, *Slovenlineſs*, *Awkwardneſs*, and *Indecency*, are ſhrewd Symptoms of ſomething mean, corrupt, and deficient, and betray a Mind untaught, illiberal, unacquainted with what is due to one's ſelf or to others. How much Cleanneſs contributes to Health needs hardly to be mentioned; and how neceſſary it is to maintain one's Character and Rank in Life, and to render us agreeable to others as well as to ourſelves, is as evident.—There are certain Motions, Airs, and Geſtures, which become the human Countenanance and Form, in which we perceive a *Comelineſs*, *Openneſs*, *Sinceriſy*, *Manlineſs*; and there are others, which, to our Senſe of Decorum, appear *unmanly*, *effeminate*, *diſingenuous*, and *unbecoming*, quite unſuitable to the native Dignity of our Face and Form. The firſt are in themſelves the moſt eaſy, natural, and communicative, give one Boldneſs and Preſence of Mind, a manly Aſſurance, an Addreſs both aweful and alluring, they beſpeak Candour and Greatneſs of Mind, raiſe the moſt agreeable Prejudices in one's Favour, render Society engaging, our ſtand Reſpect, and often Love, and give Weight and Authority both in Converſation and Buſineſs; in fine, they are the Colouring of Virtue, which ſhew it to the greateſt Advantage in whomſoever it is; and not only imitate, but in ſome meaſure ſupply it where it is wanting. Whereas the laſt, viz. *Rudeneſs*, *Affectation*, *Indecorum*, and the like, have all the contrary Effects; they are burthenſome to one's ſelf, a Diſhonour to our Nature, and a Naiſance in Society. The former Qualities or Goods are beſt attained by a liberal Education, by preſerving a juſt Senſe of the Dignity of our Nature, by keeping the beſt and politeſt Company, but above all, by acquiring thoſe virtuous and ennobling Habits of Mind, which are Decency in Perfection, which will give an Air of unaffected Grandeur, and ſpread a Luſtre

Remarkable.

a Luſtre truly engaging over the whole Form and Deportment.

Goods of exterior ſocial Connections.

We are next to conſider thoſe Goods which conſiſt in exterior ſocial Connections, as *Fame*, *Fortune*, *Civil Authority*, *Power*.

Fame.

The firſt has a twofold Aſpect, as a Good pleaſant in itſelf, or gratifying to an original Paſſion, and then as expedient or uſeful towards a farther End. Honour from the Wiſe and Good, on the Account of a virtuous Conduct, is regaling to a good Man; for then his Heart re-echoes to the grateful Sound. There are few quite indifferent, even to the Commendation of the Vulgar. Though we cannot approve that Conduct which proceeds entirely from this Principle, and not from good Affection or Love of the Conduct itſelf, yet as it is often a Guard and additional Motive to Virtue in Creatures imperfect as we are, and often diſtracted by interfering Paſſions, it might be dangerous to ſuppreſs it altogether, however wiſe it may be to reſtrain it within due Bounds, and however laudable to uſe it only as a Scaffolding to our Virtue, which may be taken down when that glorious Structure is finiſhed, but hardly till then. To purſue Fame for itſelf, is *innocent*; to regard it only as an Auxiliary to Virtue, is noble; to ſeek it chiefly as an Engine of public Uſefulneſs, is ſtill more noble, and highly praiſe-worthy. For though the Opinion and Breath of Men are tranſient and fading Things, often obtained without Merit, and loſt without Cauſe; yet as our Buſineſs is with Men, and as our Capacity of ſerving them is generally increaſed in proportion to their Eſteem of us, therefore ſound and well-eſtabliſhed *moral* Applauſe may, and will be modeſtly, not oſtentatiouſly ſought after by the *Good*; not indeed as a ſolitary refined Sort of Luxury, but as a public and proper Inſtrument to ſerve and bleſs Mankind. At the ſame time they will learn to deſpiſe that Reputation which is founded on Rank, Fortune, and any other Circumſtances or Accompliſhments that are foreign to real Merit, or to uſeful Services done to others, and think that Praiſe of little Avail which is purchaſed without Deſert, and beſtowed without Judgment.

Fortune, Power, &c.

Fortune, *Power*, and *Civil Authority*, or whatever is called Influence and Weight among Mankind, are *Goods* of the *ſecond* Diviſion, that is, valuable and purſuable only as they are *uſeful*, or as Means to a farther End, viz. procuring or preſerving the immediate Objects of Enjoyment or Happineſs

pineſs to ourſelves or others. Therefore to love ſuch Goods on their own Account, and to purſue them as *Ends*, not the Means of Enjoyment, muſt be highly prepoſterous and abſurd. There can be no Meaſure, no Limit to ſuch Purſuit; all muſt be Whim, Caprice, Extravagance. Accordingly ſuch Appetites, unlike all the *natural* ones, are increaſed by Poſſeſſion, and whetted by Enjoyment. They are always precarious, and never without Fears, becauſe the Objects lie without one's ſelf; they are ſeldom without Sorrow and Vexation, becauſe no Acceſſion of Wealth or Power can ſatisfy them. But if thoſe Goods are conſidered only as the Materials or Means of private or public Happineſs, then the ſame Obligations which bind us to purſue the latter, bind us likewiſe to purſue the former. We may, and no doubt we ought, to ſeek ſuch a Meaſure of Wealth as is neceſſary to ſupply all our real Wants, to raiſe us above ſervile Dependence, and provide us with ſuch Conveniencies as are ſuited to our Rank and Condition in Life. To be regardleſs of this Meaſure of Wealth, is to expoſe ourſelves to all the Temptations of Poverty and Corruption, to forfeit our natural Independency and Freedom, to degrade, and conſequently to render the Rank we hold, and the Character we ſuſtain in Society, uſeleſs, if not contemptible. When theſe important Ends are ſecured, we ought not to murmur or repine that we poſſeſs no more; yet we are not ſecluded by any Obligation, moral or divine, from ſeeking more, in order to give us that happieſt and moſt god-like of all Powers, the *Power* of *doing Good*. A ſupine Indolence in this reſpect is both abſurd and criminal; *abſurd*, as it robs us of an inexhauſted Fund of the moſt refined and durable Enjoyments; and *criminal*, as it renders us ſo far uſeleſs to the Society to which we belong. "That Purſuit of Wealth which goes "beyond the former End, *viz.* the obtaining "the Neceſſaries, or ſuch Conveniencies of Life, "as in the Eſtimation of Reaſon, not of Va- "nity or Paſſion, are ſuited to our Rank and Condition, "and yet is not directed to the latter, *viz.* the doing Good, "is what we call AVARICE." And "that Purſuit of "*Power*, which, after ſecuring one's ſelf, *i. e.* "attained the proper Independence and Li- "berty of a rational ſocial Creature, is not "directed to the Good of others, is what we call *Am-* "*bition*, or the *Lust of Power*." To what Extent the ſtrict Meaſures of Virtue will allow us to purſue either Wealth,

How far juſtifiable.

Avarice.

Ambition.

Wealth, or Power, and Civil Authority, is not perhaps poſſible preciſely to determine. That muſt be left to Prudence, and the peculiar Character, Condition, and other Circumſtances of each Man. Only thus far a Limit may be ſet, that the Purſuit of either muſt encroach upon no other Duty or Obligation which we owe to ourſelves, to Society, or to its Parent and Head. The ſame Reaſoning is to be applied to *Power* as to *Wealth*. It is only valuable as an Inſtrument of our own Security, and of the free Enjoyment of thoſe original Goods it may, and often does, adminiſter to us, and as an Engine of more extenſive Happineſs to our Friends, our Country, and Mankind. In this Degree it may, and unleſs a greater Good forbids it, ought to be ſought after; and when it is either offered to us, or may be obtained, conſiſtently with a good Conſcience, it would be criminal to decline it, and a ſelfiſh Indolence to neglect the neceſſary Means of acquiring it.

How Fame and Power are attained.

Now the beſt, and indeed the only Way to obtain a ſolid and laſting *Fame*, is an uniform inflexible Courſe of Virtue, the employing one's Ability and Wealth in ſupplying the Wants, and uſing one's Power in promoting or ſecuring the Happineſs, the Rights and Liberties of Mankind, joined to an univerſal Affability and Politeneſs of Manners. And ſurely one will not miſtake the Matter much, who thinks the ſame Courſe conducive to the acquiring greater Acceſſions both of Wealth and Power; eſpecially if he adds to thoſe Qualifications a vigorous Induſtry, a conſtant Attention to the Characters and Wants of Men, to the Conjunctures of Times, and continually varying Genius of Affairs, and a ſteady intrepid Honeſty, that will neither yield to the Allurements, nor be overawed with the Terrors of that corrupt and corrupting Scene in which we live. We have ſometimes heard indeed of other Ways and Means, as, as Fraud, Diſſimulation, Servility, and Proſtitution, and the like ignoble Arts, by which the Men of the World (as they are called, ſhrewd Politicians, and Men of Addreſs!) amaſs Wealth, and procure Power: but as we want rather to form a Man of Virtue, an honeſt, contented, happy Man, we leave to the Men of the World their own Ways, and permit them unenvied, and unimitated by us, to reap the Fruit of their Doings.

Goods of the Intellect.

The next Species of Objects in the Scale of Good, are the Goods of the *Intellect*, as *Knowledge*, *Memory*, *Judgment*, *Taſte*, *Sagacity*, *Docility*, and whatever elſe we call *intellectual* Virtues. Let us conſider

conſider them a little, and the *Means* as well as *Obligations* to improve them.

Their Moment.

As *Man* is a *rational* Creature, capable of knowing the Differences of Things and Actions—as he not only ſees and feels what is preſent, but remembers what is paſt, and often foreſees what is future;—as he advances, from ſmall Beginnings, by ſlow Degrees, and with much Labour and Difficulty, to Knowledge and Experience:—as his Opinions ſway his Paſſions,—as his Paſſions influence his Conduct,—and as his Conduct draws Conſequences after it, which extend not only to the preſent, but to the future Time, and therefore is the principal Source of his Happineſs or Miſery, it is evident, that he is formed for intellectual Improvements, and that it muſt be of the utmoſt Conſequence for him to improve and cultivate his intellectual Powers, on which thoſe Opinions, thoſe Paſſions, and that Conduct depend.*

The Pleaſures they give.

Knowledge and Taſte.

But beſides the future Conſequences and Moment of improving our *intellectual* Powers, their immediate Exerciſe on their proper Objects yields the moſt rational and refined Pleaſures. Knowledge and a right Taſte in the Arts of *Imitation* and *Deſign*, as *Poetry*, *Painting*, *Sculpture*, *Muſic*, *Architecture*, afford not only an innocent, but a moſt ſenſible and ſublime Entertainment. By theſe the Underſtanding is inſtructed in ancient and modern Life, the Hiſtory of Men and Things, the Energies and Effects of the Paſſions, the Conſequences of Virtue and Vice; by theſe the Imagination is at once entertained and nouriſhed with the Beauties of Nature and Art, lighted up and ſpread out with the Novelty, Grandeur, and Harmony of the Univerſe: and in fine, the Paſſions are agreeably rouzed, and ſuitably engaged by the greateſt and moſt intereſting Objects that can fill the human Mind. He who has a Taſte formed to theſe ingenious Delights, and Plenty of Materials to gratify it, can never want the moſt agreeable Exerciſe and Entertainment, nor once have reaſon to make that faſhionable Complaint of the Tediouſneſs of Time. Nor can he want a proper Subject for the Diſcipline and Improvement of his Heart. For being daily converſant with *Beauty*, *Order*, and *Deſign*, in inferior Subjects, he bids fair for growing in due Time an Admirer of what is fair and well-proportioned in the Conduct of Life, and the Order of Society, which is only *Order* and *Deſign* exerted

* *Vid. Philoſ. Sinic. Confuc. Lib.* I. §. 3, 4, &c.

n their higheſt Subject. He will learn to transfer the
rs of Poetry to the Harmony of the Mind, and of
verned Paſſions; and from admiring the Virtues of
in moral Paintings, come to approve and imitate them
. Therefore to cultivate a *true* and *correct Taſte*,
e both our *Intereſt* and our *Duty*, when the Circum-
of our Station give Leiſure and Opportunity for it, and
he doing it is not inconſiſtent with our higher Obliga-
r Engagements to Society and Mankind.

beſt attained by reading the beſt Books, *good Senſe* has more the Aſcendant than
g, and which retain more to *Practice* than
ulation; by ſtudying the beſt Models, *i. e.*
which profeſs to imitate Nature moſt, and approach the
to it, and by converſing with Men of the moſt refined
and the greateſt Experience in Life. *How attained.*

to the other *intellectual* Goods, what a
of Entertainment muſt it be to inveſti-
e Truth and various Relations of Things,
e the Operations of Nature to general
to explain by theſe its manifold Phæ-
a, to underſtand that Order by which the Univerſe
ld, and that Oeconomy by which it is governed; to
ainted with the human Mind, the Connections, Sub-
ions, and Uſes of its Powers, and to mark their Energy
! How agreeable to the ingenious Enquirer, to ob-
he manifold Relations and Combinations of indivi-
linds in Society, to diſcern the Cauſes why they flou-
decay, and from thence to aſcend, through the vaſt
of Beings, to that *general* Mind which preſides over all,
erates unſeen in every Syſtem, and in every Age,
the whole Compaſs and Progreſſion of Nature! De-
o ſuch Entertainments as theſe, the *Contemplative* have
ned every other Pleaſure, retired from the Body, ſo
k, and ſequeſter'd themſelves from ſocial Intercourſe;
the *Buſy* have often preferred to the Hurry and Din
e, the calm Retreats of Contemplation; for theſe,
nce they came to taſte them, even the *Gay* and *Vo-*
s have thrown up the lawleſs Purſuits of Senſe and
te, and acknowledged theſe mental Enjoyments to be
ſt *refined*, and indeed the *only* Luxury. Beſides, by a
d large Knowledge of Nature, we recognize the
ions of its Author; and thus Piety, and all thoſe pious
ons which depend on juſt Sentiments of his Character,
akened and confirmed; and a thouſand ſuperſtitious *Moment of intellectual Goods.*

Fears, that ariſe from partial Views of his Nature and Works, will of courſe be excluded. An extenſive Proſpect of human Life, and of the Periods and Revolutions of human Things, will conduce much to the giving a certain Greatneſs of Mind, and a noble Contempt of thoſe little Competitions about Power, Honour, and Wealth, which *diſturb* and *divide* the Bulk of Mankind; and promote a calm Indurance of thoſe Inconveniencies and Ills that are the common Appendages of Humanity. Add to all, that a juſt Knowledge of human Nature, and of thoſe Hinges upon which the Buſineſs and Fortunes of Men turn, will prevent our thinking either too highly, or too meanly of our Fellow-Creatures, give no ſmall Scope to the Exerciſe of Friendſhip, Confidence and Good-will, and, at the ſame time, brace the Mind with a proper Caution and Diſtruſt, thoſe Nerves of Prudence, and give a greater Maſtery in the Conduct of private as well as public Life. Therefore, by cultivating our Intellectual Abilities, we ſhall beſt promote and ſecure our Intereſt, and be qualified for acting our Part in Society with more Honour to ourſelves, as well as Advantage to Mankind. Conſequently to improve them to the utmoſt of our Power is our Duty; they are Talents committed to us by the Almighty Head of Society, and we are accountable to him for the Uſe of them. But be it remembered withal, that how engaging ſoever the *Muſes* and *Graces* are, they are chiefly valuable, as they are Handmaids to uſher in and ſet off the *Moral Virtues*, from whoſe Service if they are ever divorced, they become Retainers to the meaner Paſſions, Panders to Vice, and convert Men (if we may uſe the Expreſſion) into a refined Sort of Savages.

How attained.

The Intellectual Virtues are beſt improved by accurate and impartial Obſervation, extenſive Reading, and unconfined Converſe with Men of all Characters, eſpecially with Thoſe who, to private Study, have joined the wideſt Acquaintance with the World and greateſt Practice in Affairs; but above all, by being much in the World, and having large Dealings with Mankind. Such Opportunities contribute much to diveſt one of Prejudices and a ſervile Attachment to crude Syſtems, to open one's Views, and to give that Experience on which the moſt uſeful, becauſe the moſt practical Knowledge is built, and from which the ſureſt Maxims for the Conduct of Life are deduced.

Moral Goods.

The higheſt Goods which enter into the Compoſition of Human Happineſs are *Moral* Goods of the Mind, directly and ultimately regarding

garding ourſelves; as *Command of the Appetites* and *Paſſions*, *Prudence* and *Caution*, *Magnanimity*, *Fortitude*, *Humility*, *Love of Virtue*, *Love of God*, *Reſignation*, and the like. Theſe ſublime Goods are Goods by way of Eminence, Goods recommended and enforced by the moſt intimate and aweful Senſe and Conſciouſneſs of our Nature; Goods that conſtitute the Quinteſſence, the very Temper of Happineſs, that Form and Complexion of Soul which renders us approveable and lovely in the Sight of God; Goods, in fine, which are the Elements of all our future Perfection and Felicity.

Their Moment.

Moſt of the other Goods we have conſidered depend partly on ourſelves, and partly on Accidents which we can neither foreſee nor prevent, and reſult from Cauſes which we cannot influence or alter. They are ſuch Goods as we may poſſeſs to-day and loſe to-morrow, and which require a Felicity of Conſtitution, and Talents to attain them in full Vigour and Perfection, and a Felicity of Conjunctures to ſecure the Poſſeſſion of them. Therefore did our Happineſs depend altogether or chiefly on ſuch tranſitory and precarious Poſſeſſions, it were itſelf moſt precarious, and the higheſt Folly to be anxious about it.—But though Creatures, conſtituted as we are, cannot be indifferent about ſuch Goods, and muſt ſuffer in ſome degree, and conſequently have our Happineſs incomplete without them, yet they weigh but little in the Scale, when compared with Moral Goods. By the benevolent Conſtitution of our Nature theſe are placed within the Sphere of our Activity, ſo that no Man can be deſtitute of them unleſs he is firſt wanting to himſelf. Some of the wiſeſt and beſt of Mankind have wanted moſt of the former Goods, and all the external kind, and felt moſt of the oppoſite Ills, ſuch at leaſt as ariſe from without; yet by poſſeſſing the latter, *viz.* the Moral Goods, have declared they were happy, and to the Conviction of the moſt impartial Obſervers have appeared happy. The worſt of Men have been ſurrounded with every outward Good and Advantage of Fortune, and have poſſeſſed great Parts; yet for want of Moral Rectitude, have been, and have confeſſed themſelves, notoriouſly and exquiſitely miſerable. The Exerciſe of Virtue has ſupported its Votaries, and made them exult in the midſt of Tortures almoſt intolerable; nay, how often has ſome falſe Form or Shadow of it ſuſtained even the greateſt Villains* and

* *As* Ravilliac, *who aſſaſſinated* Henry *the Fourth of* France; *and* Balthaſar Gerard, *who murdered* William *the Firſt Prince of* Orange.

and Bigots under the ſame Preſſures! But no external Goods, no Goods of Fortune have been able to alleviate the Agonies, or expel the Fears of a guilty Mind, conſcious of the deſerved Hatred and Reproach of Mankind, and the juſt Diſpleaſure of Almighty God. The other Senſes and Capacities of Enjoyment are gratified when they obtain their reſpective Objects, and the Happineſs of the correſpondent Paſſions depends on their Succeſs in their ſeveral Purſuits. Thus the Love of Honour, of Pleaſure, of Power, and the like, are ſatisfied only when they obtain the deſired Honour, Pleaſure, or Power: when they fail of attaining theſe, they are diſappointed, and Diſappointment gives Diſguſt. But *Moral Good* is of ſo ſingular and ſublime a Nature, that when the Mind is in purſuit of it, though it ſhould prove unſucceſsful in its Aims, it can reſt in the Conduct without repining, without being dejected at the ill Succeſs; nay, the Pleaſure attending the Conſciouſneſs of upright Aims and generous Efforts abſorbs the Diſappointment, and makes inferior Ends diſappear as of no amount in the great Aggregate or Surpluſage of Good that remains. So that though Human Happineſs, in the preſent State, conſiſts of many ſeparate and little Rivulets, which muſt often be left dry in the perpetual Flux and Reflux of Human Things, yet the main Stream, with which thoſe leſſer ones do generally communicate, flows from within, from the Heart of Man, and, if this be ſound and clear, rolls on through Life with a ſtrong and equal Current. Yet as many ſmall Articles make up a pretty large Sum, and as thoſe inferior Goods which enter into the account, as *Health*, *Fame*, *Fortune*, and the like, are often, even after our utmoſt Care, unattainable, or at leaſt precarious, it is evidently of the utmoſt Conſequence to be prepared againſt the Want or Loſs of them, by having our Deſires moderate, and our Paſſions under due Command. And let it be remembered, that it is not only of great Importance to our Eaſe and Security againſt Ill, but one of the higheſt Improvements of Virtue, to contemn thoſe Things, the Contempt of which is truly great and heroic, and to place our Happineſs chiefly in thoſe virtuous Exerciſes and Affections which ariſe from a pure and well-diſpoſed Mind; an Happineſs which no Condition of Life can exclude, no Change of Fortune interrupt or deſtroy. This will arm and fortify the Mind againſt the Want of thoſe inferior Goods, and againſt the Pains which reſult to the Generality of Mankind from the contrary Evils.

As

As the preſent Condition of Human Life is wonderfully chequered with Good and Ill, and as no Height of Station, no Affluence of Fortune can abſolutely inſure the Good or ſecure againſt the Ill, it is evident that a great Part of the Comfort and Serenity of Life muſt lie in having our Minds duly affected with regard to both, *i. e.* rightly attempered to the Loſs of one and the Sufferance of the other. For it is certain that outward Calamities derive their chief Malignity and Preſſure from the inward Diſpoſitions with which we receive them. By managing theſe right, we may greatly abate that Malignity and Preſſure, and conſequently diminiſh the Number, and weaken the Moment of the Ills of Life, if we ſhould not have it in our Power to obtain a large Share of its Goods. There are particularly three Virtues which go to the forming this right Temper towards Ill, and which are of ſingular Efficacy, if not totally to remove, yet wonderfully to alleviate the Calamities of Life. Theſe are *Fortitude*, or *Patience*, *Humility*, and *Reſignation*. Let us conſider them a little, and the Effects they produce.

The mixed Condition of Human Life requires particular Virtues.

Fortitude is that calm and ſteady Habit of Mind, which either moderates our Fears, and enables us bravely to encounter the Proſpect of Ill, or renders the Mind ſerene and invincible under its immediate Preſſure. It lies equally diſtant from Raſhneſs and Cowardice; and though it does not hinder us from feeling, yet prevents our complaining or ſhrinking under the Stroke. It always includes a generous Contempt of, or at leaſt a noble Superiority to, thoſe precarious Goods of which we can inſure neither the Poſſeſſion nor Continuance. The Man therefore who poſſeſſes this Virtue in this ample Senſe of it, ſtands upon an Eminence, and ſees human Things below him; the Tempeſt indeed may reach him, but he ſtands ſecure and collected againſt it upon the Baſis of conſcious Virtue, which the ſevereſt Storms can ſeldom ſhake, and never overthrow.

Fortitude.

Humility is another Virtue of high Rank and Dignity, though often miſtaken by proud Mortals for Meanneſs and Puſillanimity. It is oppoſed to *Pride*, which commonly includes in it a falſe or over-rated Eſtimation of our own Merit, an Aſcription of it to ourſelves as its only and original Cauſe, an undue Compariſon of ourſelves with others, and, in conſequence of that ſuppoſed Superiority, an arrogant Preference of ourſelves, and a ſupercilious Contempt of them. *Humility*, on the other hand, ſeems to denote that modeſt and ingenuous Temper of Mind,

Humility.

Mind, which ariſes from a juſt and equal Eſtimate of our own Advantages compared with thoſe of others, and from a Senſe of our deriving all originally from the Author of our Being. Its ordinary Attendants are Mildneſs, a gentle Forbearance, and an eaſy unaſſuming Humanity with regard to the Imperfections and Faults of others; Virtues rare indeed, but of the faireſt Complexion, the proper Offspring of ſo lovely a Parent, the beſt Ornaments of ſuch imperfect Creatures as we are, precious in the Sight of God, and which ſweetly allure the Hearts of Men.—This Virtue was not altogether unknown to the more ſober Moraliſts among the Ancients, who place *Submiſſio Animi* among the Train of Virtues; but it is taught in its higheſt Perfection, and enforced by the greateſt Example and the ſtrongeſt Motives in the *Chriſtian* Religion, which recommends and exalts this as well as every other Moral and Divine Virtue, beyond every other Syſtem of Religion and Philoſophy that ever appeared in the World; and teaches us throughout the whole of it to refer every Virtue and every Endowment to their original Source, the Father of Lights, *from whom deſcends every good and perfect Gift.* Humility is a Virtue which highly adorns the Character in which it reſides, and ſets off every other Virtue; it is an admirable Ingredient of a contented Mind, and an excellent Security againſt many of thoſe Ills in Life which are moſt ſenſibly felt by People of a delicate Nature. To be perſuaded of this, we need only remember how many of our Uneaſineſſes ariſe from the Mortifications of our Pride———how almoſt every Ill we ſuffer, and all the Oppoſition we meet with, is aggravated and ſharpened by the Reflection on our imaginary Merit, or how little we deſerved thoſe Ills, and how much we were entitled to the oppoſite Goods. Whereas, a ſober Senſe of what we are and whoſe we are, and a Conſciouſneſs how far ſhort our Virtue is of that Standard of Perfection to which we ought to aſpire, will blunt the Edge of Injuries and Affronts, and make us ſit down contented with our Share of the Goods, and eaſy under the Ills of Life, which this quick-ſighted, unaſſuming Virtue will teach us often to trace to our own Miſconduct, and conſequently to interpret as the juſt and wholeſome Correction of Heaven.

Reſignation. *Reſignation* is that mild and heroic Temper of Mind, which ariſes from a Senſe of an infinitely wiſe and good Providence, and enables one to acquieſce, with a cordial Affection, in its juſt Appointments. This Virtue has ſomething very peculiar in its Nature, and ſublime in its Efficacy. For it teaches us to bear

Ill

ll not only with Patience and as being unavoidable, but it ransforms, as it were, Ill into Good, by leading us to con-der it and every Event that has the leaſt Appearance of Ill, s a Divine Diſpenſation, a wiſe and benevolent Tempera-ient of Things, ſubſervient to Univerſal Good, and, of ourſe, including that of every Individual, eſpecially of ſuch s calmly ſtoop to it. In this Light, the Adminiſtration it-lf, nay every Act of it, becomes an Object of Affection, ie Evil diſappears, or is converted into a Balm which both eals and nouriſheth the Mind. For, though the firſt unex-ected Acceſs of Ill may ſurprize the Soul into Grief, yet that rief, when the Mind calmly reviews its Object, changes into ontentment, and is by degrees exalted into Veneration and divine Compoſure. Our private Will is loſt in that of the lmighty, and our Security againſt every real Ill reſts on the me bottom as the Throne of him who lives and reigns for er. He, therefore, who is provided with ſuch Armour, ken, if we may ſay ſo, from the Armory of Heaven, may proof againſt the ſharpeſt Arrows of Fortune, and defy the npotence of human Malice; and though he cannot be ſecure gainſt thoſe Ills which are the ordinary Appendages of Man's ot, yet may poſſeſs that quiet contented Mind which takes f their Pungency, and is next to an Exemption from them. ut we can only touch on theſe Things; a fuller Detail of our bligations to cultivate and purſue theſe Moral Goods of the ind, and the beſt Method of doing it, muſt be reſerved to nother and more proper Place.

Before we finiſh this Section, it may be fit obſerve, that as the Deity is the ſupreme id inexhauſted Source of Good, on whom the appineſs of the whole Creation depends; as is the higheſt Object in Nature, and the ly Object who is fully proportioned to the *Intellectual* and *oral* Powers of the Mind, in whom they ultimately reſt id find their moſt perfect Exerciſe and Completion, he is erefore termed the CHIEF GOOD of Man, OBJECTIVELY nſidered. And *Virtue*, or the proportioned and vigorous ercise of the ſeveral Powers and Affections on their reſpec-e Objects, as above deſcribed, is, in the Schools, termed e CHIEF GOOD, FORMALLY conſidered, or its FORMAL ea, being the inward Temper and native Conſtitution of uman Happineſs. *Chief Good* Object ... *and* Formal.

From the Detail we have gone through, the following rollaries may be deduced.

Corollaries.

Firſt, It is evident that the Happineſs of ſuch a *Progreſſive* Creature as Man can never be at a ſtand, or continue a fixed invariable Thing. His finite Nature, let it riſe ever ſo high, admits ſtill higher Degrees of Improvement and Perfection. And his Progreſſion in Improvement, or Virtue, always makes way for a Progreſſion in Happineſs. So that no poſſible Point can be aſſigned in any Period of his Exiſtence in which he is perfectly happy, that is, ſo happy as to exclude higher Degrees of Happineſs. All his Perfection is only Comparative. 2. It appears that many things muſt conſpire to complete the Happineſs of ſo *various* a Creature as Man, ſubject to ſo many Wants, and ſuceptible of ſuch different Pleaſures. 3. As his Capacities of Pleaſure cannot be all gratified at the ſame time, and muſt often interfere with each other in ſuch a precarious and fleeting State as Human Life, or be frequently diſappointed, perfect Happineſs, *i. e.* the undiſturbed Enjoyment of the ſeveral Pleaſures of which we are capable, is unattainable in our preſent State. 4. That State is moſt to be ſought after, in which the feweſt Competitions and Diſappointments can happen, which leaſt of all impairs any Senſe of Pleaſure, and opens an inexhauſted Source of the moſt refined and laſting Enjoyments. 5. That State which is attended with all thoſe Advantages, is a State or Courſe of Virtue. 6. THEREFORE, a State of *Virtue*, in which the Moral Goods of the Mind are attained, is the HAPPIEST STATE.

SECT. III. *Duties to* SOCIETY.

CHAP. I.

Filial and Fraternal Duty.

AS we have followed the Order of Nature in tracing the Hiſtory of Man, and thoſe Duties which he owes to himſelf, it ſeems reaſonable to take the ſame Method with thoſe he owes to SOCIETY, which conſtitute the *ſecond* Claſs of his *Obligations.*

Connection of Parents.

His Parents are among the earlieſt Objects of his Attention, he becomes ſooneſt acquainted with them, repoſes a peculiar Confidence in them, and ſeems to regard them with a fond

fond Affection, the early Prognoſtics of his future *Piety* and *Gratitude*. Thus does Nature dictate the firſt Lines of filial Duty, even before a juſt Senſe of the Connection is formed. But when the Child is grown up, and has attained to ſuch a Degree of Underſtanding, as to comprehend the *Moral Tye*, and be ſenſible of the Obligations he is under to his Parents; when he looks back on their tender and diſintereſted Affection, their inceſſant Cares and Labours in nurſing, educating and providing for him during that State in which he had neither Prudence nor Strength to care and provide for himſelf, he muſt be conſcious that he owes to them theſe peculiar Duties.

Duties to Parents.

To reverence and honour them as the Inſtruments of Nature in introducing him to Life, and to that State of Comfort and Happineſs which he enjoys; and therefore to eſteem and imitate their good Qualities, to alleviate and bear with, and ſpread, as much as poſſible, a decent Veil over their Faults and Weakneſſes.

2. To be highly grateful to them for thoſe Favours which it can hardly ever be in his Power fully to repay; to ſhew this Gratitude by a ſtrict Attention to their Wants, and a ſolicitous Care to ſupply them; by a ſubmiſſive Deference to their Authority and Advice, eſpecially by paying great Regard to it in the Choice of a Wife, and of an Occupation; by yielding to, rather than peeviſhly contending with their Humours, as remembering how oft they have been perſecuted by his; and in fine, by ſoothing their Cares, lightening their Sorrows, ſupporting the Infirmities of Age, and making the remainder of their Life as comfortable and joyful as poſſible. ——To pay theſe Honours and make theſe Returns is, according to *Plato*, to pay the oldeſt, beſt, and greateſt of Debts, next to thoſe we owe to our ſupreme and common Parent. They are founded in our Nature, and agreeable to the moſt fundamental Laws of *Gratitude*, *Honour*, *Juſtice*, *Natural Affection* and *Piety*, which are interwoven with our very Conſtitution; nor can we be deficient in them without caſting off that Nature, and contradicting thoſe Laws.

Duties to Brethren and Siſters.

As his Brethren and Siſters are the next with whom the Creature forms a *Social* and *Moral* Connection, to them he owes a *Fraternal* Regard; and with them ought he to enter into a ſtrict League of Friendſhip, mutual Sympathy, Advice, Aſſiſtance, and a generous Intercourſe of kind Offices, remembering their Relation to common Parents, and that Bro-

therhood of Nature, which unites them into a cloſer Community of Intereſt and Affection.

CHAP. II.

Concerning Marriage.

Connection with the other Sex.

WHEN Man arrives to a certain Age, he becomes ſenſible of a peculiar Sympathy and Tenderneſs towards the other Sex; the Charms of Beauty engage his Attention, and call forth new and ſofter Diſpoſitions than he has yet felt. The many amiable Qualities exhibited by a fair Outſide, or by the mild Allurement of Female Manners, or which the prejudiced Spectator without much Reaſoning ſuppoſes thoſe to include, with ſeveral other Circumſtances, both natural and accidental, point his View and Affection to a particular Object, and of courſe contract that general rambling Regard, which was loſt and uſeleſs among the undiſtinguiſhed Croud, into a peculiar and permanent Attachment to one Woman, which ordinarily terminates in the moſt important, venerable, and delightful Connection in Life.

The Grounds of this Connection.

The State of the Brute Creation is very different from that of Human Creatures. The former are cloathed and generally armed by their Structure, eaſily find what is neceſſary to their Subſiſtence, and ſoon attain their Vigour and Maturity; ſo that they need the Care and Aid of their Parents but for a ſhort while; and therefore we ſee that Nature has aſſigned to them vagrant and tranſient Amours. The Connection being purely *Natural* and merely for propagating and rearing their Offſpring, no ſooner is that End anſwered, than the Connection diſſolves of courſe. But the Human Race are of a more tender and defenceleſs Conſtitution; their Infancy and Non-age continue longer; they advance ſlowly to Strength of Body, and Maturity of Reaſon; they need conſtant Attention, and a long Series of Cares and Labours to train them up to Decency, Virtue, and the various Arts of Life. Nature has, therefore, provided them with the moſt affectionate and anxious Tutors, to aid

aid their Weakneſs, to ſupply their Wants, and to accompliſh them in thoſe neceſſary Arts, even their own Parents, on whom ſhe has devolved this mighty Charge, rendered agreeable by the moſt alluring and powerful of all Tyes, Parental Affection. But unleſs both concur in this grateful Taſk, and continue their joint Labours, till they have rear'd up and planted out their young Colony, it muſt become a Prey to every rude Invader, and the Purpoſe of Nature in the original Union of the Human Pair be defeated. Therefore our Structure as well as Condition is an evident Indication, that the Human Sexes are deſtined for a more intimate, for a moral and laſting Union. It appears likewiſe, that the principal End of Marriage is not to propagate and nurſe up an Offspring, but to educate and form Minds for the great Duties and extenſive Deſtinations of Life. Society muſt be ſupplied from this original Nurſery with uſeful Members, and its faireſt Ornaments and Supports. But how ſhall the young Plants be guarded againſt the Inclemencies of the Air and Seaſons, cultivated and raiſed to Maturity, if Men, like Brutes, indulge to vagrant and promiſcuous Amours?

Moral Ends of Marriage.

The Mind is apt to be diſſipated in its Views, and Acts of Friendſhip and Humanity; unleſs the *former* be directed to a particular Object, and the *latter* employed in a particular Province. When Men once indulge to this Diſſipation, there is no ſtopping their Career, they grow inſenſible to Moral Attractions, and by obſtructing, or impairing, the decent and regular Exerciſe of the tender and generous Feelings of the human Heart, they in time become unqualified for, or averſe to, the forming a Moral Union of Souls, which is the Cement of Society, and the Source of the pureſt domeſtic Joys. Whereas a rational, undepraved *Love*, and its fair Companion, *Marriage*, collect a Man's Views, guide his Heart to its proper Object, and by confining his Affection to that Object, do really enlarge its Influence and Uſe. Beſides, it is but too evident from the Conduct of Mankind, that the common Ties of Humanity are too feeble to engage and intereſt the Paſſions of the Generality in the Affairs of Society. The Connections of Neighbourhood, Acquaintance, and general Intercourſe, are too wide a Field of Action for many; and thoſe of a *Public* or *Community* are ſo for more, and in which they *either care not, or know not how* to exert themſelves. Therefore Nature, ever wiſe and benevolent, by implanting that ſtrong Sympathy which reigns between the Individuals of each Sex, and by urging them to form

a particular moral Connection, the Spring of many domeſtic Endearments, has meaſured out to each Pair a particular *Sphere of Action*, proportioned to their Views, and adapted to their reſpective Capacities. Beſides, by intereſting them deeply in the Concerns of their own little Circle, ſhe has connected them more cloſely with Society, which is compoſed of particular Families, and bound them down to their good Behaviour in that particular Community to which they belong. This *Moral Connection* is *Marriage*, and this *Sphere of Action* is a *Family*. It appears from what has been ſaid that, to adult Perſons, who have Fortune ſufficient to provide for a Family, according to their Rank and Condition in Life, and who are endued with the ordinary Degrees of Prudence neceſſary to manage a Family, and educate Children, it is a Duty they owe to Society, to marry.

An Objection anſwered.

Some Pretenders to a peculiar Refinement in Morals think, however, that a *ſingle State* is more conducive to the Perfection of our Nature, and to thoſe ſublime Improvements to which Religion calls us. Sometimes indeed the more important Duties, we owe to the Public, which could ſcarce be performed, or not ſo well in the married State, may require the Single Life, or render the other not ſo honourable a Station in ſuch Circumſtances; but ſurely, it muſt be improving to the *Social* Affections to direct them to particular Objects whom we eſteem, and to whom we ſtand in the neareſt Relation, and to aſcertain their Exerciſe in a Field of Action, which is both agreeable in itſelf, and highly advantageous to Society. The conſtant Exerciſe of Natural Affection, in which one is neceſſarily engaged in providing for, and training up one's Children, opens the Heart, and muſt inure the Mind to frequent Acts of Self-denial and Self-command, and conſequently ſtrengthen the Habits of Goodneſs. The Truth of this is but too evident in thoſe married Perſons who are ſo unfortunate as to have no Children, who for want of thoſe neceſſary Exerciſes of Humanity are too generally over-anxious about the World, and perhaps too attentive to the Affair of Oeconomy. Another Circumſtance deſerves to be remembered, that Men who are continually engaged in *Study* or *Buſineſs*, or anxiouſly intent on public Concerns, are apt to grow ſtern and ſevere, or peeviſh and moroſe, on account of the frequent Rubs they meet with, or the Fatigues they undergo in ſuch a Courſe. The Female Softneſs is therefore uſeful to moderate their Severity, and change their Ill-humour into domeſtic Tenderneſs, and a ſofter kind of

Humanity. And thus their Minds, which were over-ſtrained by the Intenſeneſs of their Application, are at once relaxed and retuned for public Action. The Minds of both Sexes are as much formed one for the other, by a Temperament peculiar to each, as their Perſons. The *Strength*, *Firmneſs*, *Courage*, *Gravity*, and *Dignity* of the *Man*, tally to the *Softneſs*, *Delicacy*, *Tenderneſs of Paſſion*, *Elegance of Taſte*, and *Decency of Converſation* of the *Woman*. The *Male* Mind is formed to *defend*, *deliberate*, *foreſee*, *contrive*, and *adviſe*. The *Female* One to *confide*, *imagine*, *apprehend*, *comply*, and *execute*. Therefore the proper Temperament of theſe different Sexes of Minds, make a fine moral Union; and the well-proportioned Oppoſition of different or contrary Qualities, like a due Mixture of Diſcords in a Compoſition of Muſic, ſwells the Harmony of Society more than if they were all Uniſons to each other. And this Union of *moral Sexes*, if we may expreſs it ſo, is evidently more conducive to the Improvement of each, than if they lived apart. For the *Man* not only protects and adviſes, but communicates Vigour and Reſolution to the *Woman*. She in her turn ſoftens, refines and poliſhes him. In her Society he finds Repoſe from Action and Care, in her Friendſhip the Ferment into which his Paſſions were wrought by the Hurry and Diſtraction of public Life, ſubſides and ſettles into a Calm; and a thouſand nameleſs Graces and Decencies that flow from her Words and Actions, form him for a more mild and elegant Deportment. His Converſation and Example on the other hand, enlarge her Views, raiſe her Sentiments, ſuſtain her Reſolutions, and free her from a thouſand Fears and Inquietudes, to which her more feeble Conſtitution ſubjects her. Surely ſuch Diſpoſitions, and the happy Conſequences which reſult from them, cannot be ſuppoſed to carry an unfriendly Aſpect to any Duty he owes either to *God*, or to *Man*.

Duties of Marriage.

Of the *Conjugal* Alliance the following are the *natural Laws*. Firſt, Mutual Fidelity to the Marriage-Bed. Diſloyalty defeats the very End of Marriage, diſſolves the natural Cement of the Relation, weakens the moral Tye, the chief Strength of which lies in the Reciprocation of Affection, and by making the Offſpring uncertain, diminiſhes the Care and Attachment neceſſary to their Education.

2. A Conſpiration of Counſels and Endeavours to promote the common Intereſt of the Family, and to educate their common Offspring. In order to obſerve theſe Laws, it is neceſſary to cultivate both before and during the married

State, the ſtricteſt Decency and Chaſtity of Manners, and a juſt Senſe of what becomes their reſpective Characters.

3. The Union muſt be inviolable and for Life. The Nature of Friendſhip, and particularly of this Species of it, the Education of their Offspring, and the Order of Society and of Succeſſions which would otherwiſe be extremely perplexed, do all ſeem to require it. To preſerve this Union, and render the matrimonial State more harmonious and comfortable, a mutual Eſteem and Tenderneſs, a mutual Deference and Forbearance, a Communication of Advice, and Aſſiſtance and Authority, are abſolutely neceſſary. If either Party keep within their proper Departments there need be no Diſputes about Power of Superiority, and there will be none. They have no *oppoſite*, no *ſeparate* Intereſts, and therefore there can be no juſt Ground for Oppoſition of Conduct.

Polygamy. From this Detail, and the preſent State of Things, in which there is pretty near a Parity of Numbers of both Sexes, it is evident that *Polygamy* is an *unnatural* State; and though it ſhould be granted to be more fruitful of Children, which however it is not found to be, yet it is by no means ſo fit for rearing Minds, which ſeems to be as much, if not more, the Intention of Nature, than the Propagation of Bodies.

Divorce, &c. In what Caſes Divorce may be proper, what are the juſt Obſtacles to Marriage, and within what Degrees of Conſanguinity it may be allowed, we have not room to diſcuſs here, and therefore we refer the Reader to Mr. *Hutchinſon*'s ingenious *Moral Compend.* Book III. Chap. 1.

CHAP. III.

Of Parental Duty.

Connection of Parents and Children. THE Connection of Parents with their Children is a natural Conſequence of the matrimonial Connection, and the Duties which they owe them, reſult as naturally from that Connection. The feeble State of Children, ſubject to ſo many Wants and Dangers, requires their inceſſant Care and Attention; their ignorant and uncultivated Minds demand their continual Inſtruction and Culture. Had human Creatures

tures come into the World with the full Strength of *Men*, and the Weakneſs of Reaſon and Vehemence of Paſſions which prevail in *Children*, they would have been too ſtrong, or too ſtubborn to have ſubmitted to the Government and Inſtruction of their Parents. But, as they were deſigned for a Progreſſion in Knowledge and Virtue, it was proper that the Growth of their Bodies ſhould keep Pace with that of their Minds, leſt the Purpoſes of that Progreſſion ſhould have been defeated. Among other admirable Purpoſes which this gradual Expanſion of their outward as well as inward Structure ſerves, this is one, that it affords ample Scope to the Exerciſe of many tender and generous Affections, which fill up the domeſtic Life with a beautiful Variety of Duties and Enjoyments; and are of courſe a noble Diſcipline for the Heart, and an hardy kind of Education for the more honourable and important Duties of *public* Life.

The Authority founded on that Connection.

The above-mentioned weak and ignorant State of Children, ſeems plainly to inveſt their Parents with ſuch Authority and Power as is neceſſary to their Support, Protection, and Education; but that Authority and Power can be conſtrued to extend no farther than is neceſſary to anſwer thoſe Ends, and to laſt no longer than that Weakneſs and Ignorance continue; wherefore the Foundation or Reaſon of the Authority and Power ceaſing, they ceaſe of courſe. Whatever Power or Authority then it may be neceſſary or lawful for Parents to exerciſe during the Non-age of their Children, to aſſume or uſurp the ſame when they have attained the Maturity or full Exerciſe of their Strength and Reaſon, would be tyrannical and unjuſt. From hence it is evident, that Parents have no Right to puniſh the Perſons of their Children more ſeverely than the Nature of their Wardſhip requires, much leſs to invade their Lives, to encroach upon their Liberty, or transfer them as their Property to any Maſter whatſoever. But if any Parent ſhould be ſo unjuſt and inhuman as to conſider and treat them like his other Goods and Chattels, ſurely whenever they dare, they may reſiſt, and whenever they can, ſhake off that inhuman and unnatural Yoke, and be free with that Liberty with which God and Nature inveſted them.

Duties of Parents.

The firſt Claſs of Duties which Parents owe their Children reſpect their natural Life, and theſe comprehend Protection, Nurture, Proviſion, introducing them into the World in a manner ſuitable to their Rank and Fortune, and the like.

The

Education. The ſecond Order of Duties regards the *intellectual* and *moral* Life of their Children, or their Education in ſuch Arts and Accompliſhments as are neceſſary to qualify them for performing the Duties they owe to themſelves and to others. As this was found to be the principal Deſign of the matrimonial Alliance, ſo the fulfilling that Deſign is the moſt important and dignified of all the parental Duties. In order therefore to fit the Child for acting his Part wiſely and worthily, as a *Man*, as a *Citizen*, and a *Creature of God*, both Parents ought to combine their joint Wiſdom, Authority and Power, and each apart to employ thoſe Talents, which are the peculiar Excellency and Ornament of their reſpective Sex. The Father ought to *lay out* and *ſuperintend* their Education, the Mother to execute and manage the Detail of which ſhe is capable. The *former* ſhould direct the manly Exertion of the intellectual aud moral Powers of his Child. His Imagination, and the Manner of thoſe Exertions are the peculiar Province of the *latter*. The *former* ſhould adviſe, protect, command, and by his Experience, maſculine Vigour, and that ſuperior Authority which is commonly aſcribed to his Sex, brace and ſtrengthen his Pupil for *active* Life, for Gravity, Integrity, and Firmneſs in Suffering. The Buſineſs of the *latter* is to bend and ſoften her *Male* Pupil, by the Charms of her Converſation, and the Softneſs and Decency of her Manners, for *ſocial* Life, for Politeneſs of Taſte, and the elegant Decorums and Enjoyments of Humanity; and to improve and refine the Tenderneſs and Modeſty of her *Female* Pupil, and form her to all thoſe mild domeſtic Virtues, which are the peculiar Characteriſtics and Ornaments of her Sex.

Delightful Taſk! to rear the tender Thought,
To teach the fair Idea how to ſhoot;
To breathe th' enliv'ning Spirit, and to fix
The generous Purpoſe in the glowing Breaſt.

To conduct the opening Minds of their ſweet Charge thro' the ſeveral Periods of their Progreſs, to aſſiſt them in each Period in throwing out the latent Seeds of Reaſon and Ingenuity, and in gaining freſh Acceſſions of Light and Virtue; and at length, with all theſe Advantages, to produce the young Adventurers upon the great Theatre of human Life, to play their ſeveral Parts in the Sight of their Friends, of Society, and Mankind! How glorioufly does Heaven reward the Taſk, when the Parents behold thoſe dear Images and Re-

Repreſentatives of themſelves, inheriting their Virtues as well as Fortunes, ſuſtaining their reſpective Characters gracefully and worthily, and giving them the agreeable Proſpect of tranſmitting their Name with growing Honour and Advantage to a Race yet unborn!

CHAP. IV.

Herile and Servile Duty.

The Ground of this Connection.

IN the natural Courſe of human Affairs it muſt neceſſarily happen, that ſome of Mankind will live in Plenty and Opulence, and others be reduced to a State of Indigence and Poverty. The former need the Labours of the latter, and the latter the Proviſion and Support of the former. This mutual Neceſſity is the Foundation of that Connection, whether we call it *Moral* or *Civil*, which ſubſiſts between Maſters and Servants. He who feeds another has a Right to ſome Equivalent, the Labour of him whom he maintains, and the Fruits of it. And he who labours for another, has a Right to expect that he ſhould ſupport him. But as the Labours of a Man of ordinary Strength are certainly of greater Value than mere Food and Cloathing; becauſe they would actually produce more, even the Maintenance of a Family, were the Labourer to employ them in his own Behalf; therefore he has an undoubted Right to rate and diſpoſe of his Service for certain Wages above mere Maintenance; and if he has incautiouſly diſpoſed of it for the latter only, yet the Contract being of the *onerous* kind, he may equitably claim a Supply of that Deficiency. If the Service be ſpecified, the Servant is bound to that only; if not, then he is to be conſtrued as bound only to ſuch Services as are conſiſtent with the Laws of Juſtice and Humanity. By the voluntary Servitude to which he ſubjects himſelf, he forfeits no Rights but ſuch as are neceſſarily included in that Servitude, and is obnoxious to no Puniſhment but ſuch as a voluntary Failure in the Service may be ſuppoſed reaſonably to require. *The Offspring of ſuch Ser-*

The Conditions of Service.

vants

vants have a Right to that Liberty which neither they, nor their Parents have forfeited.

The Caſe of great Offenders.

As to thoſe who becauſe of ſome heinous Offence, or for ſome notorious Damage, for which they cannot otherwiſe compenſate, are condemned to perpetual Service, they do not, on that Account, forfeit all the Rights of Men; but thoſe, the Loſs of which is neceſſary to ſecure Society againſt the like Offences for the future, or to repair the Damage they have done.

The Caſe of Captives.

With regard to Captives taken in War, it is barbarous and inhuman to make perpetual Slaves of them, unleſs ſome peculiar and aggravated Circumſtances of Guilt have attended their Hoſtility. The Bulk of the Subjects of any Government engaged in War, may be fairly eſteemed innocent Enemies, and therefore they have a Right to that Clemency which is conſiſtent with the common Safety of Mankind, and the particular Security of that Society againſt which they are engaged. Though ordinary Captives have a Grant of their Lives, yet to pay their Liberty as an Equivalent, is much too high a Price. There are other Ways of acknowledging or returning the Favour, than by ſurrendering what is far dearer than Life itſelf. * To thoſe who under Pretext of the Neceſſities of Commerce, drive the unnatural Trade of bargaining for human Fleſh, and conſigning their innocent but unfortunate Fellow-creatures to eternal Servitude and Miſery, we may addreſs the Words of a fine Writer; "Let Avarice defend it as it will, there is an honeſt "Reluctance in Humanity againſt buying and ſelling, and "regarding thoſe of our own Species as our Wealth and "Poſſeſſions."

As it is the Servant's Duty to ſerve his Maſter with Fidelity and Chearfulneſs, like one who knows he is accountable to the great Lord of the Univerſe, ſo the Maſter ought to exact nothing of his Servant beyond the natural Limits of Reaſon and Humanity, remembering that he is a Brother of the ſame Family, a Partner of the ſame Nature, and a Subject of the ſame great Lord.

* *Vid.* Hutch. *Mor. Inſt. Phil.* lib. III. cap. 3.

CHAP.

CHAP. V.

Social Duties of the private Kind.

HItherto we have conſidered only the *Domeſtic*, *Oeconomical* Duties, becauſe theſe are firſt in the Progreſs of Nature. But as Man paſſes beyond the little Circle of a Family, he forms Connections with Relations, Friends, Neighbours, and others; from whence reſults a new Train of Duties of the more private ſocial Kind, as *Friendſhip*, *Chaſtity*, *Courteſy*, *Good-Neighbourhood*, *Charity*, *Forgiveneſs*, *Hoſpitality*.

Man's Aptitude for Society.

Man is admirably formed for particular ſocial Attachments and Duties. There is a peculiar and ſtrong Propenſity in his Nature to be affected with the Sentiments and Diſpoſitions of others. Men, like certain muſical Inſtruments, are ſet to each other, ſo that the Vibrations or Notes excited in one, raiſe correſpondent Notes and Vibrations in the others. The Impulſes of *Pleaſure* or *Pain*, *Joy* or *Sorrow*, made on one Mind, are by an inſtantaneous Sympathy of Nature, communicated in ſome degree to all; eſpecially when Hearts are (as an humane Writer expreſſes it) in *Uniſon* of Kindneſs; the Joy that vibrates in one, communicates to the other alſo. We may add, that though Joy thus imparted ſwells the Harmony, yet Grief vibrated to the Heart of a Friend, and rebounding from thence in ſympathetic Notes, melts as it were, and almoſt dies away. All the Paſſions, but eſpecially thoſe of the ſocial Kind, are contagious; and when the Paſſions of one Man mingle with thoſe of another, they increaſe and multiply prodigiouſly. There is a moſt moving Eloquence in the human Countenance, Air, Voice, and Geſture, wonderfully expreſſive of the moſt latent Feelings and Paſſions of the Soul, which darts them like a ſubtile Flame, into the Hearts of others, and raiſes correſpondent Feelings there: Friendſhip, Love, Good-humour, Joy, ſpread through every Feature, and particularly ſhoot from the Eyes their ſofter and fiercer Fires with an irreſiſtible Energy. And in like manner, the oppoſite Paſſions of Hatred, Enmity, Ill-humour, Melancholy, diffuſe a ſullen and ſaddening Air over the Face, and flaſhing from Eye to Eye, kindle a Train of ſimilar Paſſions. By theſe and other

other admirable Pieces of Machinery, Men are formed for Society and the delightful Interchange of friendly Sentiments and Duties, to increaſe the Happineſs of others by Participation, and their own by Rebound, and to diminiſh, by dividing, the common Stock of their Miſery.

Duties ariſing from private Relation.

The firſt Emanations of the *Social* Principle beyond the Bounds of a Family, lead us to form a nearer Conjunction of Friendſhip or Good-will with thoſe, who are any wiſe connected with us by *Blood*, or *Domeſtic Alliance*. To them our Affection does, commonly, exert itſelf in a greater or leſs Degree, according to the Nearneſs or Diſtance of the Relation. And this Proportion is admirably ſuited to the Extent of our Powers and the Indigence of our State; for it is only within thoſe leſſer Circles of Conſanguinity or Alliance, that the Generality of Mankind are able to diſplay their Abilities or Benevolence, and conſequently to uphold their Connection with Society and Subſerviency to a public Intereſt. Therefore it is our Duty to regard theſe cloſer Connections as the next Department to that of a Family, in which Nature has marked out for us a Sphere of Activity and Uſefulneſs; and to cultivate the kind Affections which are the Cement of thoſe endearing Alliances.

Ingredients of Friendſhip.

Frequently, the View of diſtinguiſhing Moral Qualities in ſome of our Acquaintance may give birth to that more noble Connection we call FRIENDSHIP, which is far ſuperior to the Alliances of Conſanguinity. For theſe are of a ſuperficial, and often of a tranſitory Nature, of which, as they hold more of *Inſtinct* than of *Reaſon*, we cannot give ſuch a rational Account. But *Friendſhip* derives all its Strength and Beauty, and the only Exiſtence which is durable, from the Qualities of the Heart, or from virtuous and lovely Diſpoſitions. Or, ſhould theſe be wanting, they or ſome Shadow of them muſt be ſuppoſed preſent. Therefore *Friendſhip* may be deſcribed to be, "The Union of two Souls, by means of *Virtue*, the "common Object and Cement of their mutual Affection." Without Virtue, or the Suppoſition of it, Friendſhip is only a *Mercenary* League, an Alliance of Intereſt, which muſt diſſolve of courſe when that Intereſt decays or ſubſiſts no longer. It is not ſo much any particular Paſſion, as a Compoſition of ſome of the nobleſt Feelings and Paſſions of the Mind. *Good Senſe*, a *juſt Taſte* and *Love of Virtue*, a *thorough Candor* and *Benignity of Heart*, or what we uſually call a *Good Temper*, and a generous Sympathy of Sentiments and Affections, are the

nc-

ſſary Ingredients of this virtuous Connection. When it is
ted on Eſteem ſtrengthened by Habit, and mellowed by
ne, it yields infinite Pleaſure, ever new and ever growing,
noble Support amidſt the various Trials and Viciſſitudes
ife, and an high Seaſoning to moſt of our other Enjoy-
its. To form and cultivate virtuous Friendſhip muſt be
improving to the Temper, as its principal *Object* is *Vir-*
ſet off with all the Allurement of Countenance, Air and
nners, ſhining forth in the native Graces of manly honeſt
timents and Affections, and rendered *viſible* as it were to
friendly Spectator in a Conduct unaffectedly great and
d; and as its principal Exerciſes are the very Energies of
tue, or its Effects and Emanations. So that where-ever
amiable Attachment prevails, it will exalt our Admiration
Attachment to Virtue, and, unleſs impeded in its Courſe
unnatural Prejudices, run out into a Friendſhip to the Hu-
n Race. For as no one can merit, and none ought to
rp, the ſacred Name of Friend, who hates Mankind, ſo,
oever truly loves *them*, poſſeſſes the moſt eſſential Quality
a true Friend.

The Duties of Friendſhip are a mutual Eſteem
each other unbribed by Intereſt and indepen- *Its Duties.*
t of it, a generous Confidence as far diſtant
n Suſpicion as from Reſerve, an inviolable Harmony of
timents and Diſpoſitions, of Deſigns and Intereſts, a Fi-
ty unſhaken by the Changes of Fortune, a Conſtancy
lterable by Diſtance of Time or Place, a Reſignation of
's perſonal Intereſt to thoſe of one's Friend, and a recipro-
unenvious, unreſerved Exchange of kind Offices.—But
idſt all the Exertions of this Moral Connection, humane
generous as it is, we muſt remember that it operates
hin a narrow Sphere, and its immediate Operations reſpect
y the Individual, and therefore, its particular Impulſes muſt
be ſubordinate to a more public Intereſt, or be always di-
ted and controuled by the more extenſive Connections of
Nature.

When our Friendſhip terminates on any of
other Sex, in whom Beauty or Agreeable- *Love and Chaſtity.*
s of Perſon and external Gracefulneſs of
nners conſpire to expreſs and heighten the
ral Charm of a tender honeſt Heart; and ſweet, ingenious,
deſt Temper, lighted up by good Senſe, it generally grows
a more ſoft and endearing Attachment. When this At-
ment is improved by a growing Acquaintance with the
rth of its Object, is conducted by Diſcretion, and iſſue

at length, as it ought to do, in the Moral Connection formerly * mentioned, it becomes the Source of many amiable Duties, of a Communication of Paſſions and Intereſts, of the moſt refined Decencies, and of a thouſand nameleſs deep-felt Joys of reciprocal Tenderneſs and Love, flowing from every Look, Word and Action. Here Friendſhip acts with double Energy, and the *Natural* conſpires with the *Moral* Charms, to ſtrengthen and ſecure the Love of Virtue. As the delicate Nature of Female Honour and Decorum, and the inexpreſſible Grace of a chaſte and modeſt Behaviour, are the ſureſt and indeed the only means of kindling at firſt, and ever after of keeping alive this tender and elegant Flame, and of accompliſhing the excellent Ends deſigned by it; to attempt by Fraud to violate one, or, under Pretence of Paſſion, to ſully and corrupt the other, and, by ſo doing, to expoſe the too often credulous and unguarded Object, with a wanton Cruelty, to the Hatred of her own Sex, and the Scorn of our's, and to the loweſt Infamy of both, is a Conduct not only baſe and criminal, but inconſiſtent with that truly rational and refined Enjoyment, the Spirit and Quinteſſence of which is derived from the baſhful and ſacred Charms of Virtue kept untainted, and therefore ever alluring to the Lover's Heart.

Courteſy, Good-neighbourhood, &c.

Courteſy, *Good-neighbourhood*, *Affability*, and the like Duties, which are founded on our private Social Connections, are no leſs neceſſary and obligatory to Creatures united in Society, and ſupporting and ſupported by each other in a Chain of mutual Want and Dependence. They do not conſiſt in a ſmooth Addreſs, an artificial or obſequious Air, fawning Adulations, or a polite Servility of Manners, but in a juſt and modeſt Senſe of our own Dignity and that of others, and of the Reverence due to Mankind, eſpecially to thoſe who hold the higher Links of the Social Chain; in a diſcreet and manly Accommodation of ourſelves to the Foibles and Humours of others; in a ſtrict Obſervance of the Rules of Decorum and Civility; but above all in a frank obliging Carriage, and generous Interchange of good Deeds rather than Words. Such a Conduct is of great Uſe and Advantage, as it is an excellent Security againſt Injury, and the beſt Claim and Recommendation to the Eſteem, Civility and univerſal Reſpect of Mankind. This inferior Order of Virtues unite the particular Members of Society more cloſely, and form the leſſer Pillars of the civil Fabric; which, in many Inſtances, ſupply the unavoidable

* *See Chap. 2. of this Sect.*

e Defects of Laws, and maintain the Harmony and
n of Social Intercourſe, where the more important and
Lines of Virtue are wanting.

ty and *Fergiveneſs* are truly amiable
ful Duties of the Social kind. There is
ld Diſtinction of Rights commonly taken
of by *Moral* Writers, *viz.* *Perfect* and
t. To fulfil the former, is neceſſary to the Being and
of Society; to fulfil the latter is a Duty equally incred
gatory, and tends to the Improvement and Proſperity of
; but as the Violation of them is not equally prejudicial
ublic Good, the fulfilling them is not ſubjected to the
nce of Law, but left to the Candor, Humanity, and
le of Individuals. And by this means ample Scope is
exerciſe all the Generoſity and diſplay the genuine Me-
Luſtre of Virtue. Thus the Wants and Misfortunes of
ail for our charitable Aſſiſtance and ſeaſonable Supplies.
e good Man, uncontrained by Law and uncontrouled
an Authority, will chearfully acknowledge and gene-
tisfy this mournful and moving Claim; a Claim ſup-
by the Sanction of Heaven, of whoſe Bounties he is
d to be the grateful Truſtee. If his own *perfect* Rights
ded by the Injuſtice of others, he will not therefore
eir *Imperfect* Right to Pity and Forgiveneſs, unleſs
nt of theſe ſhould be inconſiſtent with the more ex-
Rights of Society, or the public Good. In that Caſe he
ve recourſe to public Juſtice and the Laws, and even
will proſecute the Injury with no unneceſſary Seve-
: rather with Mildneſs and Humanity. When the
s merely perſonal, and of ſuch a Nature as to admit of
tions, and the Forgiveneſs of which would be attended
o worſe Conſequences, eſpecially of a public kind, the
lan will generouſly forgive his offending Brother. And
s Duty to do ſo, and not to take private Revenge or
Juſtice to himſelf. For though Reſentment of Injury is
d Paſſion, and implanted, as we obſerved before, for
l good Ends; yet conſidering the manifold Partialities
and Miſtakes for themſelves, that every one is to act
e in his own Cauſe, and to execute the Sentence dic-
y his own Reſentment, it is but too evident that Man-
ould be left boundleſs in their Power, and the leaſt Sufferer
ould return to make full Reprizals. So that Evil,
with Evil, would perpetually continued
of Violence and Wrong, and
.

it not impracticable. Therefore, where the Security of the Individual, or Good of the Public, does not require a proportionable Retaliation, it is agreeable to the general Law of Benevolence, and to the particular End of the Passion (which is to prevent Injury and the Misery occasioned by it) to forgive personal Injuries, * or not to return Evil for Evil. This Duty is one of the noble Refinements which *Christianity* has made upon the general Maxims and Practice of Mankind, and enforced with a peculiar Strength and Beauty, by Sanctions no less alluring than awesul. And indeed the Practice of it is generally its own Reward, by expelling from the Mind the most dreadful Intruders upon its Repose, those rancorous Passions which are begot and nurtured by Resentment, and by disarming and even subduing every Enemy one has, except such as have nothing left of Men but the outward Form.

Hospitality.

The most enlarged and humane Connection of the private Kind, seems to be the Hospitable Alliance, from which flow the amiable and disinterested Duties we owe to Strangers. If the Exercise of Passions of the most private and instinctive kind is beheld with Moral Approbation and Delight, how lovely and venerable must those appear, which result from a calm Philanthropy, are founded in the common Rights and Connections of Society, and embrace Men, not of a particular Sect, Party, or Nation, but all in general without Distinction, and without even the little Partialities of Self-love.

CHAP. VI.

Social Duties of the COMMERCIAL *Kind.*

General Connection.

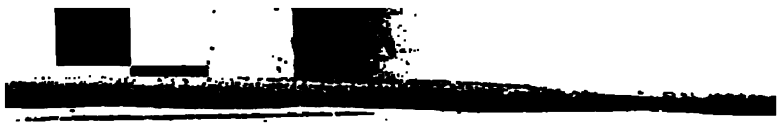
THE next Order of Connections are those which arise from the Wants and Weakness of Mankind, and from the various Circumstances in which their Interest or Affections place them. These we may call *Commercial Connections*, and the Duties which belong to them *Commercial Duties*, as *Justice, Fair Dealing, Generosity, Charity, Gratitude*, and the like.

It is observed somewhere by a Writer of the first Rank, that though Nature is perfect in all her Works, yet the best observed imperfect and obscure Distinction among [illegible]

* See Prov. xxv. 21. Matt. v. 44. Luke vi. 27.

s lie beyond the Reach of Human Skill and Power, and operly of her own Department he has given the finiſh- and. Theſe Men may deſign . r and imitate, but he ither rival them, nor add to their Beauty or Perfection. are the Forms and Structure of Vegetables, Animals, any of their Productions, as the Honey-comb, the Spi- Web, and the like. There are others of her Works ſhe has of deſign left unfiniſhed, as it were, in order rciſe the Ingenuity and Power of Man. She has preſent- him a rich Profuſion of Materials of every kind for his niency and Uſe; but they are rude and unpoliſhed, or be come at without Art and Labour. Theſe therefore ſt apply, in order to adapt them to his Uſe and to enjoy in Perfection. Thus Nature has given him an infinite y of Herbs, Grain, Foſſils, Minerals, Wood, Water, Air, and a thouſand other crude Materials to ſupply merous Wants. But he muſt ſow, plant, dig, refine, build, and, in ſhort, manufacture the various Produce ture, in order to obtain even the Neceſſaries, and much the Conveniencies and Elegancies of Life. Theſe then e Price of his Labour and Induſtry, and, without that, e will ſell him nothing. But as the Wants of Mankind ny, and the ſingle Strength of Individuals ſmall, they hardly find the Neceſſaries, and much leſs the Conveni- of Life, without uniting their Ingenuity and Strength uiring theſe, and without a mutual Intercourſe of good s. Some Men are better formed for ſome kinds of In- y and Labour, and others for other kinds; and different nd Climates are enriched with different Productions; Men by exchanging the Produce of their reſpective La- and ſupplying the Wants of one Countr with the Su- ties of another, do, in effect, diminiſh the Labours of and increaſe the Abundance of all. This is the Foun- of all Commerce, or Exchange of Commodities and one with another; in order to facilitate which, Men contrived different Species of *Coin*, or *Money*, as a com- tandard by which to eſtimate the comparative Values of eſpective Goods. But to render Commerce ſure and ef , *Juſtice*, *Fair-dealing*, *Sincerity*, and *Fidelity to Contracts* olutely neceſſary.

tice, or *Fair-dealing*, or, in other words, ention to treat others as we would be [illegible] by them, [illegible] Virtue of the firſt Impor- and is [illegible] the virtuous Character. It is the [illegible] which connects



ey ſhould prove to be againſt his Intereſt? And do not we ndemn him as a Knave, who violates them on that Ac- unt? A Promiſe is a voluntary Declaration, by Words or an Action equally ſignificant, of our Reſolution to do ſome- ng in behalf of another, or for his Service. When it is de, the Perſon who makes it, is by all ſuppoſed under an bligation to perform it. And he to whom it is made, may mand the Performance as his Right. That Perception of *ligation* is a ſimple Idea, and is on the ſame Footing as our ier Moral Perceptions, which may be deſcribed by In- nces, but cannot be defined. Whether we have a Per- tion of ſuch Obligation quite diſtinct from the Intereſt, ier Public or Private, that may accompany the Fulfilment it, muſt be referred to the Conſcience of every Individual. d, whether the mere Senſe of that Obligation, apart from Concomitants, is not a ſufficient Inducement, or Motive to p one's Promiſe, without having recourſe to any ſelfiſh nciple of our Nature, muſt be likewiſe appealed to the nſcience of every honeſt Man. *Fair-dealing* and *Fidelity Compacts* require, that we take no Advantage of the Ig- rance, Paſſion, or Incapacity of others, from whatever uſe that Incapacity ariſes;———that we be explicit and ndid in making Bargains, juſt and faithful in fulfilling our t of them. And if the other Party violates his Engage- nts, Redreſs is to be ſought from the Laws, or from thoſe o are intruſted with the Execution of them. In fine, the *mercial* Virtues and Duties require that we not only do invade, but maintain the Rights of others;——that we be and impartial in transferring, bartering, or exchanging operty, whether in Goods or Service; and be inviolably hful to our Word and our Engagements where the Matter them is not criminal, and where they are not extorted by rce.—But on this the deſigned Brevity of the Work will permit us farther to inſiſt.

CHAP. VII.

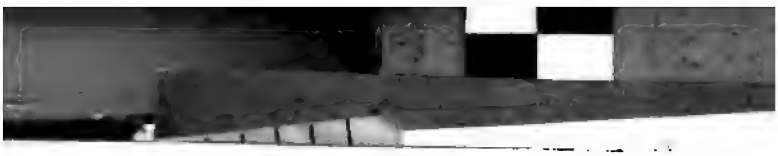
Social Duties of the POLITICAL *Kind.*

WE are now arrived at the *laſt* and *higheſt* Order of Duties reſpecting Society, which reſult from the exciſe of the moſt generous and heroic Affections, and are nded on our moſt enlarged Connections.

Political Connections.

The *Social* Principle in Man is of ſuch an expanſive Nature, that it cannot be confined within the Circuit of a Family, of Friends, or a Neighbourhood; it ſpreads into wider Syſtems, and draws Men into larger Confederacies, Communities and Common-wealths.—It is in theſe only that the higher Powers of our Nature attain the higheſt Improvement and Perfection of which they are capable. Theſe Principles hardly find Objects in the ſolitary State of Nature. *There* the Principle of Action riſes no higher at fartheſt than *Natural Affection* towards one's Offspring. There Perſonal or Family-Wants entirely engroſs the Creature's Attention and Labour, and allow no Leiſure, or, if they did, no Exerciſe for Views and Affections of a more enlarged kind. In *Solitude* all are employed in the ſame way, in providing for the *Animal* Life. And even after their utmoſt Labour and Care, ſingle and unaided by the Induſtry of others, they find but a ſorry Supply of their Wants, and a feeble, precarious Security againſt Dangers from wild Beaſts; from inclement Skies and Seaſons; from the Miſtakes, or petulant Paſſions of their Fellow-Creatures; from their Preference of themſelves to their Neighbours; and from all the little Exorbitances of Self-love. But in *Society*, the mutual Aids which Men give and receive, ſhorten the Labours of each, and the combined Strength and Reaſon of Individuals give Security and Protection to the whole Body. There is both a Variety and Subordination of Genius among Mankind. Some are formed to lead and direct others, to contrive Plans of Happineſs for Individuals, and of Government for Communities, to take in a Public Intereſt, invent Laws and Arts, and ſuperintend their Execution, and in ſhort to refine and civilize human Life. Others, who have not ſuch good Heads, may have as honeſt Hearts, a truly Public ſpirit, Love of Liberty, Hatred of Corruption and Tyranny, a generous Submiſſion to Laws, Order, and Public Inſtitutions, and an extenſive Philanthropy. And others, who have none of thoſe Capacities either of Heart, or Head, may be well formed for Manual Exerciſes and Bodily Labour. The former of theſe Principles have no Scope in Solitude, where a Man's Thoughts and Concerns do all either center in himſelf, or extend no farther than a Family; into which little Circle all the Duty and Virtue of the Solitary Mortal is crouded. But Society finds proper Objects and Exerciſes for every Genius, and the nobleſt Objects and Exerciſes for the nobleſt Geniuſes, and for the higheſt Principles in the Human Conſtitution: particularly for that warmeſt and moſt divine

Paſſion



Paſſion which God hath kindled in our Boſoms, the Inclination of doing Good and reverencing our Nature; which may find here both Employment, and the moſt exquiſite Satisfaction. In Society a Man has not only more Leiſure, but better Opportunities, of applying his Talents with much greater Perfection and Succeſs, eſpecially as he is furniſhed with the joint Advice and Aſſiſtance of his Fellow-creatures, who are now more cloſely united one with the other, and ſuſtain a common Relation to the ſame Moral Syſtem, or Community. This then is an Object proportioned to his moſt enlarged Social Affections, and in ſerving it he finds Scope for the Exerciſe and Refinement of his higheſt Intellectual and Moral Powers. THEREFORE *Society*, or a *State of Civil Government*, reſts on theſe two principal Pillars, "That "in it we find Security againſt thoſe Evils which are un- "avoidable in Solitude—and obtain thoſe Goods, ſome of "which cannot be obtained at all, and others not ſo well in "that State, where Men depend ſolely on their individual Sa- "gacity and Induſtry."

From this ſhort Detail it appears that *Man* is a SOCIAL Creature, and formed for a SOCIAL State; and that *Society*, being adapted to the higher Principles and Deſtinations of his Nature, muſt, of neceſſity, be his NATURAL State.

Political Duties.

The Duties ſuited to that State, and reſulting from thoſe Principles and Deſtinations, or in other words, from our Social Paſſions and Social Connections, or Relation to a Public Syſtem, are *Love of our Country, Reſignation and Obedience to the Laws, Public Spirit, Love of Liberty, Sacrifice of Life and all to the Public*, and the like.

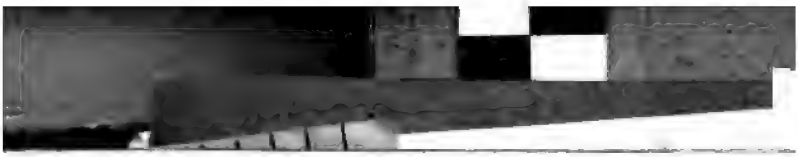
Love of one's Country.

Love of our Country is one of the nobleſt Paſſions that can warm and animate the human Breaſt. It includes all the limited and particular Affections to our Parents, Children, Friends, Neighbours, Fellow-citizens, Country-men. It ought to direct and limit their more confined and partial Actions within their proper and natural Bounds, and never let them incroach on thoſe ſacred and firſt Regards we owe to the great Public to which we belong. Were we ſolitary Creatures, detached from the reſt of Mankind, and without any Capacity of comprehending a *Public Intereſt*, or without Affections, leading us to deſire and purſue it, it would not be our Duty to mind it, nor criminal to neglect it. But, as we are PARTS of the *Public Syſtem*, and are not only capable of taking in large Views of its Intereſts, but by the ſtrongeſt Affections connected with it, and prompted to take a Share

a Share of its Concerns, we are under the most sacred Ties to prosecute its Security and Welfare with the utmost Ardor, especially in Times of public Trial. This *Love of our Country* does not imply an Attachment to any particular Soil, Climate, or Spot of Land, where perhaps we first drew our Breath, though their Natural Ideas are often associated with the *Moral* ones; and, like external Signs or Symbols, help to ascertain and kindle them: but it implies an Attention to that *moral System*, or *Commonwealth*, which is governed by the same Laws and Magistrates, and whose several Parts are nations connected one with the other, and all united upon the Foundation of common Interest. Perhaps indeed every Member of the Commonwealth cannot extend his Love to so large an Object, who spreads it's Branches through three Provinces, and over a Tract of Land; and still less can he form such an Idea, if there is no *Public*, but it all are subject to the Caprice and unlimited Will of one Man; but the Preference the Generality show to their native Country; the Concern and Longing after it which they express, when they have been long absent from it; the Labours they undertake and Sufferings they endure to save or serve it; and the peculiar Attachment they have to their Countrymen, evidently demonstrate that the Passion is natural, and never fails to exert itself when it is rarely disengaged from foreign Clogs, and is directed to its proper Object. Wherever it prevails in its genuine Vigour and Extent, it swallows up all selfish and sordid Regards, it conquers the Love of *ease*, *Pleasure*, *Pleasure* and *Life* itself, when the amiable Partialities of *Friendship*, *Gratitude*, *private Affection*, or *Regards to a Family* come in Competition with it, it will teach us bravely to sacrifice all, in order to maintain the *Rights*, and *promote* or *defend* the Honour and Happiness of our Country.

Reasons for Concord and Obedience

Allegiance and *Obedience to the Laws*, and *Concord* of the Society to which we belong, are *Points* of Duty as necessary to its very Being and Security, without which it must soon degenerate into a State of Licence and Anarchy. The Welfare, nay, the Nature of Civil Society requires, that there should be a Subordination of Orders, or Diversity of Ranks and Conditions in it;—that certain Men, or Orders of Men be appointed to super-intend and manage such Affairs as concern the Public Safety and Happiness;—that all have their particular Provinces assigned them;—that such a Subordination be settled among them, as none of them may interfere with another;—and finally, that



that certain *Rules*, or common *Meaſures of Action* be agreed on, by which each is to diſcharge his reſpective Duty to govern or be governed, and all may concur in ſecuring the Order, and promoting the Felicity of the whole Political Body. Thoſe *Rules of Action* are the *Laws* of the Community, and thoſe different *Orders* are the ſeveral Officers, or Magiſtrates, appointed by the Public to explain them, and ſuper-intend or aſſiſt in their Execution. In conſequence of this Settlement of Things, it is the Duty of each Individual to obey the Laws enacted, to ſubmit to the Executors of them with all due Deference and Homage, according to their reſpective Ranks and Dignity, as to the Keepers of the Public Peace, and the Guardians of Public Liberty; to maintain his own Rank, and perform the Functions of his own Station with Diligence, Fidelity, and Incorruption. The Superiority of the *higher* Orders, or the Authority with which the State has inveſted them, entitle them, eſpecially if they employ their Authority well, to the Obedience and Submiſſion of the *Lower*, and to a proportionable Honour and Reſpect from all. The Subordination of the Lower Ranks claims Protection, Defence and Security from the higher. And the Laws, being ſuperior to all, require the Obedience and Submiſſion of all, being the laſt Reſort, beyond which there is no Deciſion or Appeal. — Beſides theſe natural and ſtated Subordinations in Society, there are others accidental and artificial, the *Opulent* and *Indigent*, the *Great* and the *Vulgar*, the *Ingenious* and *Prudent*, and thoſe who are leſs ſo. The *Opulent* are to adminiſter to the Neceſſities of the *Indigent*, and the *Indigent* to return the Fruits of their Labours to the *Opulent*. The *Great* ought to defend and patronize their *Dependants* and *Inferiors*, and *They*, in their turn, to return their combined Strength and Aſſiſtance to the *Great*. The *Prudent* ſhould improve the Ingenuities of the Mind for the Benefit of the *Induſtrious*, and the *Indefatigable* lend the Dexterities of their Strength for the Advantage of the *Prudent*.

Public Spirit, Heroic Zeal, Love of Liberty, and the other *Political* Duties do, above all others, recommend thoſe who practiſe them to the Admiration and Homage of Mankind; becauſe, as they are the Offspring of the nobleſt Minds, ſo *are they* the Parents of the greateſt Bleſſings to Society. Yet exalted as they are, it is only in equal and free Governments, where they can be exerciſed and have their due Effect. For there only does a true

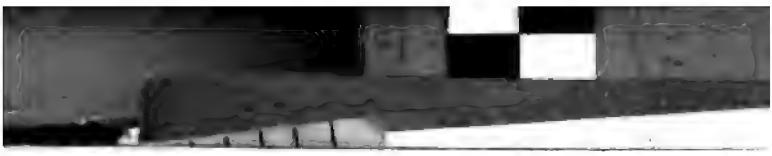
Veneration of Public Spirit, Love of Liberty, &c.

a true *Public* prevail, and there only is the *Public Good* made the Standard of the Civil Conſtitution. As the End of Society is the *Common Intereſt* and *Welfare* of the People aſſociated, this End muſt of neceſſity be the *Supreme Law* or *Common Standard* by which the particular Rules of Action of the ſeveral Members of the Society towards each other are to be regulated. But a *common Intereſt* can be no other than that which is the Reſult of the *common Reaſon*, or *common Feelings* of all. Private Men, or a particular Order of Men, have Intereſts and Feelings peculiar to themſelves, and of which they may be good Judges; but theſe may be ſeparate from, and often contrary to the Intereſts and Feelings of the reſt of the Society; and therefore they can have no Right to make, and much leſs to impoſe, Laws on their Fellow-Citizens, inconſiſtent with, and oppoſite to thoſe Intereſts and thoſe Feelings. Therefore a *Society*, a *Government*, or *real Public*, truly worthy the Name, and not a Confederacy of Banditti, a Clan of lawleſs Savages, or a Band of Slaves under the Whip of a Maſter, muſt be ſuch a one as conſiſts of Freemen, chuſing or conſenting to Laws themſelves; or, ſince it often happens that they cannot aſſemble and act in a *Collective* Body, delegating a ſufficient Number of *Repreſentatives*, *i. e.* ſuch a Number as ſhall moſt fully comprehend, and moſt equally repreſent, their *common Feelings* and *common Intereſts*, to digeſt and vote Laws for the Conduct and Controul of the whole Body, the moſt agreeable to thoſe common Feelings and common Intereſts.

Political Duties of every Citizen.

A Society thus conſtituted by *common Reaſon*, and formed on the Plan of a *common Intereſt*, becomes immediately an Object of public Attention, public Veneration, public Obedience, a public, and inviolable Attachment, which ought neither to be ſeduced by Bribes, nor awed by Terrors; an Object, in fine, of all thoſe extenſive and important Duties which ariſe from ſo glorious a Confederacy. To watch over ſuch a Syſtem; to contribute all he can to promote its Good by his Reaſon, his Ingenuity, his Strength, and every other Ability, whether Natural or Acquired; to reſiſt, and, to the utmoſt of his Power, defeat every Incroachment upon it, whether carried on by a ſecret Corruption, or open Violence; and to ſacrifice his Eaſe, his Wealth, his Power, nay Life itſelf, and what is dearer ſtill, his Family and Friends, to defend or ſave it, it is the Duty, the Honour, the Intereſt, and the Happineſs of every Citizen; it will make him venerable and beloved while he lives, be lamented and honoured

if



if he falls in ſo glorious a Cauſe, and tranſmit his Name with immortal Renown to the lateſt Poſterity.

Of the People.

As the PEOPLE are the Fountain of Power and Authority, the original Seat of Majeſty, the Authors of Laws, and the Creators of Officers to execute them; if they ſhall find the Power they have conferred abuſed by their Truſtees, their Majeſty violated by Tyranny, or by Uſurpation, their Authority proſtituted to ſupport Violence, or ſcreen Corruption, the Laws grown pernicious through Accidents unforeſeen, or unavoidable, or rendered ineffectual through the Infidelity and Corruption of the Executors of them; then it is their Right, and what is their Right is their Duty, to reſume that delegated Power, and call their Truſtees to an Account; to reſiſt the Uſurpation, and extirpate the Tyranny; to reſtore their ſullied Majeſty and proſtituted Authority; to ſuſpend, alter, or abrogate thoſe Laws, and puniſh their unfaithful and corrupt Officers. Nor is it the Duty only of the united Body, but every Member of it ought, according to his reſpective Rank, Power, and Weight in the Community, to concur in advancing and ſupporting thoſe glorious Deſigns.

Of Britons.

The Obligations of every *Briton* to fulfil the political Duties, receive a vaſt Acceſſion of Strength, when he calls to mind of what a noble and well-balanced Conſtitution of Government he has the Honour to partake; a Conſtitution founded on *common Reaſon*, *common Conſent*, and *common Good*; a Conſtitution of free and equal Laws, ſecured againſt *arbitrary* Will and *popular* Licence, by an admirable Temperament of the governing Powers, controuling and controuled by one another. How muſt every one who has tolerable Underſtanding to obſerve, or tolerable Honeſty to acknowledge its happy Effects, venerate and love a Conſtitution, in which the Majeſty of the People is, and has been frequently recognized; in which Kings are made and unmade by the Choice of the People; Laws enacted or annulled only by their own Conſent, and for their own Good, in which none can be deprived of their Property, abridged of their Freedom, or forfeit their Lives without an Appeal to the Laws, and the Verdict of their Peers or Equals; a Conſtitution, in fine, the Nurſe of Heroes, the Parent of Liberty, the Patron of Learning and Arts, the Dominion of Laws, "the Pride of *Britain*, the Envy of her "Neighbours" and their Sanctuary too! — How diſſolute and execrable muſt their Character and Conduct be, who, inſtead of ſacrificing their *Intereſt* and *Ambition*, will not part

with

with the leaſt Degree of either, to preſerve inviolate, and entail in full Vigour to their Poſterity, ſuch a glorious Conſtitution, the Labour of former Ages, and Price of ſo much Blood and Treaſure; but would chuſe rather to ſacrifice it, and all their own Independency, Freedom, and Dignity, to perſonal Power, and hollow Grandeur, to any little Pageant of a *King*, who ſhould prefer being the *Leader* of *Slaves* to being the *Guardian* of *Freemen*, and conſider himſelf as the *Proprietor*, not the *Father* of his People!—But Words cannot expreſs the *Selfiſhneſs* and *Servility* of theſe Men; nor ſo little the public and heroic Spirit of ſuch, if any ſuch there are, as have Virtue enough ſtill left to ſtem the Torrent of Corruption, and guard our ſacred Conſtitution againſt the Profligacy and Proſtitution of the Corrupters and the Corrupted.

SECT. IV.

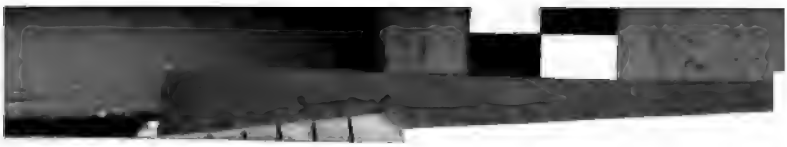
Duty to GOD.

Theiſm natural.

OF all the *Relations* which the human Mind ſuſtains, that which ſubſiſts between the *Creator* and his *Creatures*, the ſupreme *Lawgiver* and his *Subjects*, is the higheſt and the beſt. This Relation ariſes from the *Nature* of a *Creature* in general, and the *Conſtitution* of the *human Mind* in particular; the nobleſt Powers and Affections of which point to an *Univerſal* Mind, and would be imperfect and abortive without ſuch a Direction. How lame then muſt that Syſtem of Morals be, which leaves a *Deity* out of the Queſtion! How diſconſolate, and how deſtitute of its firmeſt Support!

Explained.

It does not appear, from any true Hiſtory or Experience or the Mind's Progreſs, that any Man by any formal Deduction of his diſcurſive Powers ever reaſoned himſelf into the Belief of a God. Whether ſuch a Belief is only ſome *natural Anticipation* of Soul, or is derived from Father to Son, and from one Man to another, in the way of *Tradition*, or is ſuggeſted to us in conſequence of an *inviolable Law of our Nature*, on beholding the auguſt Aſpect and beautiful Order of the Univerſe, we will not pretend to determine. What ſeems moſt agreeable to Experience is, that a *Senſe* of its *Beauty* and *Grandeur*, and the *admirable*



admirable Fitneſs of one Thing to another in its vaſt Apparatus, leads the Mind *neceſſarily* and *unavoidably* to a Perception of *Deſign*, or of a *deſigning Cauſe*, the Origin of all, by a Progreſs as ſimple and natural, as that by which a *beautiful Picture*, or a *fine Building* ſuggeſts to us the Idea of an *excellent Artiſt*. For it ſeems to hold univerſally true, that wherever we diſcern a *Tendency*, or *Co-operation of Things towards a certain End*, or producing a common Effect, there, by a neceſſary *Law of Aſſociation*, we apprehend *Intelligence*, a *deſigning Energy*, or *Cauſe*. No matter whether the Objects are *natural* or *artificial*, ſtill that Suggeſtion is unavoidable, and the *Connection* between the *Effect* and its *adequate Cauſe*, obtrudes itſelf on the Mind, and it requires no nice Search or elaborate Deduction of Reaſon, to trace or prove that Connection. We are particularly ſatisfied of its Truth in the Subject before us, by a kind of direct Intuition, and we do not ſeem to attend to the Maxim we learn in Schools, "That there "cannot be an *infinite Series* of *Cauſes* and *Effects* produ-"cing and produced by one another." Nor do we feel a great Acceſſion of Light and Conviction after we have learned it. We are conſcious of our *Boldneſs*, of *Thought*, *Sentiment* and *Paſſion*, and ſenſible withal that theſe came not of ourſelves, therefore we immediately recognize a *Parent-Mind*, an *Original Intelligence*, from whom we borrowed thoſe little Portions of Thought and Activity. And while we not only feel *kind* Affections in ourſelves, and diſcover them in others, but likewiſe behold round us ſuch a Number and Variety of Creatures, united with Natures nicely adjuſted to their ſeveral Stations and Oeconomies, ſupporting and ſupported by each other, and all ſatisfied by a *common Order* of Things, and ſharing different Degrees of Happineſs, according to their reſpective Capacities, we are naturally and neceſſarily led up to the Idea of ſuch a benevolent Offspring, the Production of ſuch wiſe and happy Beings. As we conceive this Parent to exiſt, above all, and prior than all, we naturally, and without reflection, aſcribe to him every kind of Perfection, *Light*, *Life*, *Power*, and *Goodneſs* without Bounds, exiſting through Time, and pervading all Space. We [illegible] to ſummon to our Aid Epithets of our *Creator*, *Preſerver*, *Benefactor*, the *Supreme Lord* and *Governor* of the World, [illegible] of natural and intellectual Creatures [illegible] Imperfections and Wants of our Reaſon and Conſtitution, for [illegible] of the [illegible] of our

[illegible],

Minds, connect us with this great and univerſal Nature. The Mind, in its Progreſs from Object to Object, from one Character and Proſpect of Beauty to another, finds ſome Blemiſh or Deficiency in each, and ſoon exhauſts, or grows weary and diſſatisfied with its Subject; it ſees no Character of Excellency among Men, equal to that Pitch of Eſteem which it is capable of exerting; no Object within the Compaſs of human Things adequate to the Strength of its Affection. Nor can it ſtop any where in this ſelf-expanſive Progreſs, or find Repoſe after its higheſt Flights, till it arrives at a Being of unbounded Greatneſs and Worth, on whom it may employ its ſublimeſt Powers without exhauſting the Subject, and give Scope to the utmoſt Force and Fulneſs of its Love, without Satiety or Diſguſt. So that the Nature of this Being correſponds to the Nature of Man; nor can his intelligent and moral Powers obtain their entire End, but on the Suppoſition of ſuch a Being, and without a real Sympathy and Communication with him. The native Propenſity of the Mind to reverence whatever is *great* and *wonderful* in Nature, finds a proper Object of Homage in him who ſpread out the Heavens and the Earth, and who ſuſtains and governs the Whole of Things. The *Admiration* of *Beauty*, the *Love* of *Order*, and the *Complacency* we feel in *Goodneſs*, muſt riſe to the higheſt Pitch, and attain the full Vigour and Joy of their Operations, when they unite in him who is the Sum and Source of all Perfection.

Imperfect Virtue of Imperfect Beings.

It is evident from the ſlighteſt Survey of Morals, that how perfectly ſoever one may be in performing the Duties which reſult from our Relations to Mankind, yet to be quite deficient in performing thoſe which ariſe from our *Relation* to the Supreme, muſt argue a ſtrange Perverſion of *Reaſon* or Depravity of *Heart*. In imperfect Degrees of Worth attract our Veneration, and if the Want of it would imply an Inconſiſtency, or, what is worſe, an Averſion to Merit, what Imperfection and Immorality of Character muſt it be to be unaffected with, and unconcerned to be all affected to an infinite Degree of Worth? To love Society, or particular Perſons only, and not to have the Senſe of our Connexion with the Univerſe to exert itſelf in the common Friendſhip and Benevolence to Mankind, or to be unconcerned at the Approbation or Cenſure of our Fellow-creatures, yet to be affected with the Love of God, or Fear of his Diſpleaſure, would be a Weakneſs unworthy of a reaſonable Creature, but to be unaffected with either, betrays a Stupidity and Inſenſibility of Mind

It

It is plain therefore beyond all Doubt, that ſome Regards are due to the great Father of all, in whom every lovely and adorable Quality combines to inſpire Veneration and Homage.

Right Opinions of God.

As it has been obſerved already, that our *Affections* depend on our *Opinions* of their Objects, and generally keep pace with them, it muſt be of the higheſt Importance, and ſeems to be among the firſt Duties we owe to the Author of our Being, "to form the leaſt imperfect, ſince we cannot form perfect "Conceptions of his *Character* and *Adminiſtration*." For ſuch *Conceptions* thoroughly imbibed, will render our *Religion* rational, and our *Diſpoſitions* refined. If our *Opinions* are diminutive and diſtorted, our Religion will be ſuperſtitious, and our Temper abject. Thus, if we aſcribe to the Deity that falſe Majeſty, which conſiſts in the unbenevolent and ſullen Exerciſe of mere *Will* or *Power*, or ſuppoſe him to delight in the Proſtrations of ſervile Fear, or as ſervile Praiſe, he will be worſhiped with mean Adulation, and a Profuſion of Compliments. Farther, if he be looked upon as a ſtern and implacable Being, delighting in Vengeance, he will be adored with pompous Offerings, Sacrifices, or whatever elſe may be thought proper to ſooth and mollify him. But if we believe *perfect Goodneſs* to be the Character of the Supreme Being, and that he loves thoſe moſt who reſemble him moſt, the Worſhip paid him will be rational and ſublime, and his Worſhipers will ſeek to pleaſe him, by imitating that Goodneſs which they adore. The Foundation then of all true Religion is a *rational Faith*. And of a rational Faith theſe ſeem to be the chief Articles, to believe, "that an in- "finite all-perfect Mind exiſts, who has no Oppoſite nor "any ſeparate Intereſt from that of his Creatures—that "he ſuper-intends and governs all Creatures and Things— "that his Goodneſs extends to all his Creatures, in different "Degrees indeed, according to their reſpective Natures, but "without any Partiality or Envy—that he does every thing "for the beſt, or in a Subſerviency to the Perfection and "Happineſs of the Whole—particularly, that he directs and "governs the Affairs of Men—inſpects their Actions,—diſtinguiſhes the *Good* from the *Bad*,—loves and befriends "the former,—is diſpleaſed with and pities the latter in this "World,—and will, according to their reſpective Deſerts, "reward one and puniſh the other in the *next*—that, in "fine, he is always carrying on a Scheme of Virtue and

Rational Faith.

"Hap-

" Happiness through an unlimited Duration—and is ever
" gaining on the Universe thro' its successive Stages and Pe-
" riods, to higher Degrees of Perfection and Felicity." This
is [illegible] the glorious Scheme of divine Faith; a Scheme
[illegible] and the Wisdom of God, and executed through his
[illegible]

This Faith we [illegible], and despise it,
[illegible] with a true and Taste, and
[illegible] on the Temper and
[illegible] of the World. He who admires
[illegible] Principles of it, must
[illegible] Other wishes, a Breast like and
Comfort of Heart, which can [illegible] to certain favourable
[illegible] Man, and [illegible] Scenes of
Things, [illegible] Objects [illegible] Nothing great
[illegible] Unbelief; or [illegible] Mortality, and Vice, than
[illegible], who [illegible] Enemy, no Op-
[illegible] to [illegible], but a Power, a Be-
[illegible] an Indulgent Friend—On the other
[illegible], a Man, [illegible] nothing greatly or
[illegible] Interest, [illegible] Right Interest,
[illegible] Heart, [illegible] Pain and Joy
[illegible] Sense, [illegible] Faith
[illegible]

concluded directly againſt the Character, yet whenever ill Paſſions and Habits pervert the Judgment, and by perverting the Judgment terminate in Atheiſm, then the Caſe becomes plainly criminal.

The Connection of Theiſm and Virtue.

But let Caſuiſts determine this as they will, a true Faith in the divine Character and Adminiſtration, is generally the Conſequence of a virtuous State of Mind. The Man who is truly and habitually good, feels the *Love* of *Order*, of *Beauty*, and *Goodneſs*, in the ſtrongeſt Degree, and therefore cannot be inſenſible to thoſe Emanations of them which appear in all the Works of God, nor help loving their Supreme Source and Model. He cannot but think, that he who has poured ſuch Beauty and Goodneſs over all his Works, muſt himſelf delight in Beauty and Goodneſs, and what he delights in muſt be both amiable and happy. Some indeed there are, and it is pity there ſhould be any ſuch, who through the unhappy Influence of a wrong Education, have entertained dark and unfriendly Thoughts of a Deity, and his Adminiſtration, though otherwiſe of a virtuous Temper themſelves. However it muſt be acknowledged, that ſuch Sentiments have, for the moſt part, a bad Effect on the Temper; and when they have not, it is becauſe the undepraved Affections of an honeſt *Heart* are more powerful in their Operation, than the ſpeculative Opinions of an informed *Head*.

Duties of Gratitude, Love, &c.

But wherever right Conceptions of the Deity and his Providence prevail, when he is conſidered as the inexhauſted Source of Light and Love, and Joy, as acting in the joint Character of a *Father* and *Governor*, imparting an endleſs Variety of Capacities to his Creatures, and ſupplying them with every thing neceſſary to their full Completion and Happineſs, what Veneration and Gratitude muſt ſuch Conceptions thoroughly believed, excite in the Mind? How natural and delightful muſt it be to one whoſe Heart is open to the Perception of Truth, and of every thing *fair*, *great*, and *wonderful* in Nature, to contemplate and adore him, who is the firſt *fair*, the firſt *great*, and firſt *wonderful*; in whom *Wiſdom*, *Power*, and *Goodneſs* dwell vitally, eſſentially, originally, and act in perfect Concert? What *Grandeur* is here to fill the moſt enlarged Capacity, what *Beauty* to engage the moſt ardent Love, what a Maſs of *Wonders* in ſuch Exuberance of Perfection to aſtoniſh and delight the human Mind through an unfailing Duration?

Other affections.

If the *Deity* is conſidered as our ſupreme *Guardian* and *Benefactor*, as the *Father of Mercies*, who loves his Creatures with infinite Tenderneſs, and, in a particular manner, all good Men, nay all who delights in Goodneſs even in its moſt imperfect Degrees; what Reſignation, what Dependence, what generous Confidence, what Hope in God, and his all-wiſe Providence, muſt ariſe in the Soul that is poſſeſſed of ſuch amiable Views of him? All thoſe Exerciſes of Piety, and above all a ſuperlative Eſteem and Love, are directed to God as to their *natural*, their *ultimate*, and indeed their only *adequate* Object; and though the immenſe Obligations we have received from him, may excite in us more lively Feelings of divine Goodneſs than a general and abſtracted Contemplation of it, yet the Affections of *Gratitude* and *Love* are of themſelves of the generous diſintereſted kind, not the Reſult of Self-intereſt, or Views of Reward. * A perfect Character, in which we always ſuppoſe infinite Goodneſs, guided by unerring Wiſdom, and ſupported by Almighty Power, is the proper Object of perfect Love; and though that Character ſuſtains to us the Relation of a *Benefactor*, yet the Mind deeply ſtruck with that Perfection, is quite loſt amidſt ſuch a Blaze of Beauty, and grows as it were inſenſible to thoſe minuter Irradiations of it upon itſelf. To talk therefore of a *mercenary* Love of God, or which has *Fear* for its principal Ingredient, is equally impious and abſurd. If we do not love the loveſieſt Object in the Univerſe for his own Sake, no Proſpect of Good or Fear of Ill can ever bribe our Eſteem, or captivate our Love. Theſe Affections are too noble to be bought or ſold, or bartered in the Way of *Gain*; *Worth*, or *Merit*, is their Object, and their Reward is ſomething ſimila. in kind. Whoever indulges ſuch Sentiments and Affections towards the Deity, muſt be confirmed in the Love of Virtue, in a Deſire to imitate its all-perfect Pattern, and in a chearful Security that all his great Concerns, thoſe of his Friends and of the Univerſe, ſhall be abſolutely ſafe under the Conduct of unerring Wiſdom, and unbounded Goodneſs. It is in his Care and Providence alone that the good Man, who is anxious for the Happineſs of all, finds perfect Serenity, a Serenity neither ruffled by partial Ill, nor ſoured by private Diſappointment.

Repentance, &c.

When we conſider the unſtained Purity and abſolute Perfection of the *Divine* Nature, and reflect withal on the Imperfection and various Blemiſhes of our own, we muſt ſink, or be convinced we ought to ſink, into the deepeſt Humility and Proſtration

* *See* Butler's Sermon on the Love of God.

ſiration of Soul before him, who is ſo wonderfully great and holy. When farther, we call to mind what low and languid Feelings we have of the Divine Preſence and Majeſty, what Inſenſibility of his fatherly and univerſal Goodneſs, nay what ungrateful Returns we have made to it, how far we come ſhort of the Perfection of his Law, and the Dignity of our own Nature, how much we have indulged to the ſelfiſh Paſſions, and how little to the benevolent ones, we muſt be conſcious that it is our Duty to repent of a Temper and Conduct ſo unworthy our Nature, and unbecoming our Obligations to its Author, and to reſolve and endeavour to act a wiſer and better Part for the future. The Connection of our Depravity and Folly with inward Remorſe, and many outward Calamities, being eſtabliſhed by the Deity himſelf, is a natural Intimation of his preſent Diſpleaſure with us; and a Propenſity to continue in the ſame Courſe, contracted in conſequence of the Laws of Habit, gives us juſt Ground of Fear, that we are obnoxious to his farther Diſpleaſure, as that Propenſity gives a Stability to our Vice and Folly, and forbodes our Perſeverance in them.

Hopes of Pardon.

Nevertheleſs, from the Character which his Works exhibit of him, from thoſe Delays or Alleviations of Puniſhment which Offenders often experience, and from the merciful Tenor of his Adminiſtration in many other Inſtances, the ſincere Penitent may entertain good Hopes that his Parent and Judge will not be ſtrict to mark Iniquity, but will be propitious and favourable to him, if he honeſtly endeavours to avoid his former Practices, and ſubdue his former Habits, and to live in a greater Conformity to the Divine Will for the future. If any Doubts or Fears ſhould ſtill remain, how far it may be conſiſtent with the Rectitude and Equity of the Divine Government to let his Iniquities paſs unpuniſhed, yet he cannot think it unſuitable to his paternal Clemency and Wiſdom to contrive a Method of retrieving the penitent Offender, that ſhall unite and reconcile the Majeſty and Mercy of his Government. If Reaſon cannot of itſelf ſuggeſt ſuch a Scheme, it gives at leaſt ſome Ground to expect it. But though *natural Religion* cannot let in more Light and Aſſurance on ſo intereſting a Subject, yet it will teach the humble Theiſt to wait with great Submiſſion for any farther Intimations it may pleaſe the Supreme Governor to give of his Will; to examine with Candor and Impartiality, whatever Evidence ſhall be propoſed to him of a *Divine Revelation*, whether that Evidence is *natural* or *ſupernatural*; to

embrace it with Veneration and Chearfulneſs, if the Evidence is clear and convincing; and finally, if it bring to light any *new Relations* or *Connections*, *natural Religion* will perſuade its ſincere Votary faithfully to comply with the *Obligations*, and perform the *Duties* which reſult from thoſe Relations and Connections.—This is *Theiſm*, *Piety*, the *Completion of Morality!*

Worſhip, Praiſe, Thankſgiving.

We muſt farther obſerve, that all thoſe Affections which we ſuppoſed to regard the Deity as their *immediate* and *primary* Object, are vital Energies of the Soul, and conſequently exert themſelves into Act, and like all its other Energies, gain Strength or greater Activity by that Exertion. It is therefore our *Duty* as well as higheſt *Intereſt*, often at ſtated Times, and by decent and ſolemn Acts, to contemplate and adore the great Original of our Exiſtence, the Parent of all Beauty, and of all Good; to expreſs our Veneration and Love, by an aweful and devout Recognition of his Perfections, and to evidence our Gratitude, by celebrating his Goodneſs, and thankfully acknowledging all his Benefits. It is likewiſe our Duty, by proper Exerciſes of Sorrow and Humiliation, to confeſs our Ingratitude and Folly, to ſignify our Dependence on God, and our Confidence in his Goodneſs, by imploring his Bleſſing and gracious Concurrence in aſſiſting the Weakneſs, and curing the Corruptions of our Nature; and finally to teſtify our Senſe of his Authority, and our Faith in his Government, by devoting ourſelves to do his Will, and reſigning ourſelves to his Diſpoſal. Theſe Duties are not therefore obligatory, becauſe the Deity needs or can be profited by them; but as they are apparently *decent* and *moral*, ſuitable to the Relations he ſuſtains of our *Creator*, *Benefactor*, *Law-giver*, and *Judge*, expreſſive of our State and Obligations, and improving to our Tempers, by making us more Rational, Social, God-like, and conſequently more Happy.

External Worſhip.

We have now conſidered INTERNAL Piety, or the *Worſhip of the Mind*, that which is in Spirit and in Truth; we ſhall conclude the Section with a ſhort Account of that which is EXTERNAL. *External* Worſhip is founded on the ſame Principles as *Internal*, and of as ſtrict Moral Obligation. It is either *private* or *public*. *Devotion*, that is *inward*, or *purely intellectual*, is too ſpiritual and abſtracted an Operation for the Bulk of Mankind. The Operations of their Minds, ſuch eſpecially as are employed on the moſt ſublime, immaterial Objects, muſt be aſſiſted

aſſiſted by their outward Organs, or by ſome Help from the Imagination, otherwiſe they will ſoon be diſſipated by ſenſible Impreſſions, or grow tireſome if too long continued. Ideas are ſuch fleeting Things, that they muſt be fixed, and ſo ſubtle, that they muſt be expreſſed and delineated as it were, by ſenſible Marks and Images, otherwiſe we cannot attend to them, nor be much affected by them. THEREFORE *verbal Adoration, Prayer, Praiſe, Thankſgiving,* and *Confeſſion,* are admirable Aids to *inward* Devotion, fix our Attention, compoſe and enliven our Thoughts, impreſs us more deeply with a Senſe of the aweful Preſence in which we are, and, by a natural and mechanical ſort of Influence, tend to heighten thoſe devout Feelings and Affections which we ought to entertain, and after this manner reduce into formal and explicit Act.

Public Worſhip.

This holds true in an higher Degree in the Caſe of PUBLIC Worſhip, where the Preſence of our Fellow-creatures, and the powerful Contagion of the *ſocial* Affections, conſpire to kindle and ſpread the devout Flame with greater Warmth and Energy. To conclude: As *God* is the *Parent* and *Head* of the *ſocial Syſtem,* as he has formed us for a *ſocial State,* as by *one* we find the beſt Security againſt the Ills of Life, and in the *other* enjoy its greateſt Comforts, and as by means of *both,* our Nature attains its higheſt Improvement and Perfection; and moreover, as there are *public Bleſſings* and *Crimes* in which we all ſhare in ſome Degree, and *public Wants* and *Dangers* to which all are expoſed, it is therefore evident, that the various and ſolemn Offices of *public Religion,* are Duties of indiſpenſible Moral Obligation, among the beſt Cements of Society, the firmeſt Prop of Government, and the faireſt Ornament of both.

THE ELEMENTS OF Moral PHILOSOPHY.

BOOK III. SECT. I.

Of Practical Ethics, *or the* Culture *of the* Mind.

Dignity and Importance of the Subject.

WE have now gone through a particular Detail of the ſeveral Duties we owe to OURSELVES, to SOCIETY, and to GOD. In conſidering the *firſt Order* of Duties, we juſt touched on the Methods of acquiring the different kinds of Goods, which we are led by Nature to purſue; only we left the Conſideration of the Method of acquiring the *Moral* Goods of the Mind to a Section by itſelf, becauſe of its ſingular Importance. This Section then will contain a brief Enumeration of the Arts of acquiring *Virtuous Habits*, and of eradicating *Vicious Ones*, as far as is conſiſtent with the Brevity of ſuch a Work; a Subject of the utmoſt Difficulty as well as Importance in Morals; to which, nevertheleſs, the leaſt Attention has been generally given by *Moral* Writers. This will properly follow a Detail of Duty, as it will direct us to ſuch *Means* or *Helps* as are moſt neceſſary and conducive to the Practice of it.

Senſible Ideas and ſenſible Taſte.

In the firſt Part of this Enquiry we traced the Order in which the Paſſions ſhoot up in the different Periods of human Life. That Order is not accidental, or dependent on the Caprice of Men, or the Influence of Cuſtom and

and Education; but ariſes from the Original Conſtitution and Laws of our Nature; of which this is one, *viz.* "That "ſenſible Objects make the firſt and ſtrongeſt Impreſſions "on the Mind." Theſe, by means of our outward Organs being conveyed to the Mind, become Objects of its Attention, on which it reflects, when the outward Objects are no longer preſent, or, in other words, when the Impreſſions upon the outward Organs ceaſe. Theſe Objects of the Mind's Reflection are called *Ideas* or *Images*. Towards theſe, by another Law of our Nature, we are not altogether indifferent, but correſpondent Movements of *Deſire* or *Averſion*, *Love* or *Hatred* ariſe, according as the Objects, of which they are Images or Copies, made an agreeable or diſagreeable Impreſſion on our Organs. Thoſe *Ideas* and *Affections* which we experience in the *firſt* Period of Life, we refer to the BODY, or to SENSE; and the TASTE which is formed towards them, we call a SENSIBLE, or a merely NATURAL TASTE; and the Objects correſponding to them we in general call GOOD or PLEASANT.

Ideas of Beauty and a fine Taſte.

But, as the Mind moves forward in its Courſe, it extends it Views, and receives a new and more *complex* Set of Ideas, in which it obſerves *Uniformity*, *Variety*, *Similitude*, *Symmetry of Parts*, *Reference to an End*, *Novelty*, *Grandeur*. Theſe compoſe a vaſt Train and Diverſity of *Imagery*, which the Mind compounds, divides, and moulds into a thouſand Forms, in the Abſence of thoſe Objects which firſt introduced it. And this more complicated Imagery ſuggeſts a new Train of *Deſires* and *Affections*, full as ſprightly and engaging as any which have yet appeared. This whole Claſs of *Perceptions* or *Impreſſions* is referred to the IMAGINATION, and forms an higher Taſte than the *Senſible*, and which has an immediate and mighty Influence on the *finer* Paſſions of our Nature, and is commonly termed a FINE TASTE.

The Objects which correſpond to this *Taſte* we uſe to call *beautiful*, *harmonious*, *great*, or *wonderful*, or in general, by the Name of BEAUTY.

Moral Ideas and a Moral Taſte.

The Mind ſtill puſhing onwards and increaſing its Stock of Ideas, aſcends from thoſe to an higher Species of Objects, *viz.* the *Order* and *Mutual Relations* of *Minds* to each other, their reciprocal *Affections*, *Characters*, *Actions* and various *Aſpects*. In theſe it diſcovers a *Beauty*, a *Grandeur*, a *Decorum*, more intereſting and alluring than

in any of the former kinds. Theſe Objects, or the Images of them paſſing in review before the Mind, do, by a neceſſary Law of our Nature, call forth another and nobler Set of Affections, as *Admiration*, *Eſteem*, *Love*, *Honour*, *Gratitude*, *Benevolence*, and others of the like Tribe. This Claſs of *Perfections* and their correſpondent *Affections*, we refer becauſe of their Objects (MANNERS) to a MORAL Senſe, and call the *Taſte* or *Temper* they excite, MORAL. And the Objects which are agreeable to this *Taſte* or *Temper* we denominate by the general Name of MORAL BEAUTY, in order to diſtinguiſh it from the other which is termed *Natural*.

Sources of Aſſociation.

Theſe different Sets of *Ideas* or *Images* are the Materials about which the Mind employs itſelf, which it blends, ranges and diverſifies ten thouſand different ways. It feels a ſtrong Propenſion to connect and aſſociate thoſe Ideas among which it obſerves any *Similitude*, or any *Aptitude*, whether *original* and *natural*, or *cuſtomary* and *artificial*, to ſuggeſt each other. Thus it is ready to aſſociate the Ideas of *Natural* and *Moral* Beauty, as both partake of the ſame Principle, *viz. Deſign*, *Harmony of Parts*, or *Reference to an End*, and are *Relative to Mind*, the common *Origin* of both. A fine Face, or a graceful Deportment *naturally* ſuggeſt Ideas of *Moral* Beauty. And many outward Badges, as Crowns, Croſiers, Purple Robes and Statues, do often, by the force of Cuſtom, excite *Moral* Sentiments, as *Majeſty*, *Piety*, *Juſtice*, *Virtue*. If any particular Sets of Ideas have been found, at any time, to co-exiſt in the ſame Objects, the Mind ſhall ever after have a Propenſity to unite them, even when they no longer co-exiſt. Thus, becauſe we have ſometimes ſeen a *good Temper* accompanying a *good Aſpect*, *Virtue* annexed to *Politeneſs*, *Merit* to *Fame*, we are ſtrongly inclined to fancy that they can never be diſunited. When any Ideas or Sets of Ideas have been produced by certain Objects or Occaſions immediately and preſently, which Objects or Occaſions have afterwards given riſe to a different and perhaps quite oppoſite Set of Ideas or Impreſſions, the ſame Objects recurring, ſhall bring in view the *former* Set, while the *latter*, being poſterior in time, ſhall be entirely forgot. Thus the *Drinker* or *Rake*, upon ſeeing his Bottle, and his Companion, or Miſtreſs, ſhall amuſe himſelf with all the gay Ideas of agreeable *Fellowſhip*, *Friendſhip*, *Gentleman-like Enjoyment*, *giving* and *receiving Pleaſures*, which thoſe Objects firſt excited, but by an unhappy Self-deluſion, ſhall over-look thoſe *Head-achs*, *Heart-achs*, that *Satiety*, and thoſe other mortifying

fying Impreſſions which accompanied though more laterly, his intemperate Indulgencies.

But whatever the Reaſons are, whether *Similitude*, *Co-exiſtence*, *Cauſality*, or any other *Aptitude* or *Relation*, why any two or more Ideas are connected by the Mind at firſt, it is an eſtabliſhed Law of our Nature, "that when two or "more Ideas have often ſtarted in Company, they form ſo "ſtrong an Union, that it is very difficult ever after to ſe-"parate them." Thus the *Lover* cannot ſeparate the Idea of *Merit* from his *Miſtreſs*; the *Courtier* that of *Dignity* from his *Title* or *Ribbon*; the *Miſer* that of *Happineſs* from his *Bags*. Here the Mind's Proceſs is often the ſame as in its more abſtracted Operations. When it has once been convinced of the Truth of any Geometrical Propoſition, it may ſtrongly retain the Connection of the Terms of the Propoſition, ſuppoſe the Equality of the Angles of a Triangle to two Right ones, though it does not attend to, or has perhaps forgot, the intervening Ideas which ſhewed that Connection. In like manner, though perhaps it was the Tendency of *Wealth* or *Power*, when well employed, to private Pleaſure, or public Happineſs, that gave the fond Admirers of either the firſt Notion of their Value, yet their Mind having once ſettled that *Connection*, frequently forgets the immediate Link, *viz.* the *wiſe* or *generous Uſe*, and by degrees comes to admire Wealth and Power for themſelves, fancying them *intrinſically* valuable, however they are uſed, and whether uſed or not. By theſe and many other Ways the ſtrongeſt Aſſociations of Ideas are formed, the different Sets of Ideas before mentioned are ſhuffled together without Regularity or Diſtinction, often without any *Natural Alliance* or *Relation*, by mere Accident, Example, Company, Sympathy, Education, and ſometimes by Caprice. So that any kind of *Natural Good* ſhall be combined with *Moral Beauty*, nay Ideas the moſt oppoſite in Nature ſhall be coupled together, ſo as hardly to be ever diſunited in the Obſerver's Mind: as for Inſtance, *Prudence* with *Craft*, *Honour* with *Injuſtice*, *Religion* with *Inhumanity*, *Corruption* or *Sedition* with *Patriotiſm*.——It is theſe Aſſociations of *Worth* or *Happineſs* with any of the different Sets of *Objects* or *Images* before ſpecified, that form our *Taſte*, or *Complex Idea* of GOOD. By another Law of our Nature, "our *Affections* follow and "are governed by this *Taſte*. And to theſe *Affections* our "*Character* and *Conduct* are ſimilar and proportioned, on "the

Laws of Aſſociation.

"the general Tenor of which our *Happiness* principally "depends."

Leading Affections formed by Taſte.

As all our *Leading* Paſſions then depend on the Direction which our *Taſte* takes, and as it is always of the ſame Strain with our *Leading* Aſſociations, it is worth while to enquire a little more particularly how theſe are formed, in order to detect the ſecret Sources from whence our Paſſions derive their principal Strength, their various Riſes and Falls. For this will give us the true Key to their Management, and let us into the right Method of correcting the *bad*, and improving the *good*.

The Importance and Uſe of the Imagination.

A very ſlight Inſpection into human Nature ſuggeſts to us, that no kind of Objects make ſo powerful an Impreſſion on us as thoſe which are immediately impreſſed on our *Senſes*, or ſtrongly painted on our *Imaginations*. Whatever is purely *Intellectual*, as abſtracted or ſcientific Truths, the ſubtile Relations and Differences of Things, has a fainter Sort of Exiſtence in the Mind; and though it may exerciſe and whet the *Memory*, the *Judgment*, or the *Reaſoning Power*, gives hardly any Impulſe at all to the *Active* Powers, the *Paſſions*, which are the main Springs of Motion. On the other hand, were the Mind entirely under the Direction of *Senſe*, and impreſſible only by ſuch Objects as are preſent, and ſtrike ſome of the outward Organs, we ſhould then be preciſely in the State of the Brute Creation, and be governed ſolely by *Inſtinct* or *Appetite*, and have no Power to controul whatever Impreſſions are made upon us: Nature has therefore endued us with a MIDDLE FACULTY, wonderfully adapted to our MIXED State, which holds partly of *Senſe* and partly of *Reaſon*, being ſtrongly allied to the *former*, and the common Receptacle in which all the Notices that come from that Quarter are treaſured up, and yet greatly ſubſervient and miniſterial to the *latter*, by giving a Body, a Coherence, and Beauty to its Conceptions. This *middle* Faculty is called the IMAGINATION, one of the moſt buſy and fruitful Powers of the Mind. Into this common Storehouſe are likewiſe carried all thoſe *Moral Images* or *Forms* which are derived from our *Moral Faculties* of Perception, and there they often undergo new Changes and Appearances, by being mixed and wrought up with the Images and Forms of *Senſible* or *Natural* Things. By this Coalition of Imagery, *Natural Beauty* is dignified and heightened by *Moral Qualities* and *Perfections*, and *Moral Qualities* are

are at once exhibited, and ſet off by *Natural Beauty*. The *Senſible* Beauty, or Good, is refined from its Droſs by partaking of the *Moral*, and the *Moral* receives a Stamp, a viſible Character and Currency from the *Senſible*.—But in order to judge of this mutual Influence, it will be proper to give a few Inſtances of the Proceſs of the *Imagination*, or of the Energy of the *aſſociating* Principle.

Its Energy in various Inſtances, in heightening ſenſible Pleaſures.

As we are firſt of all accuſtomed to *ſenſible* Impreſſions and *ſenſible* Enjoyments, we contract early a *Senſual Reliſh*, or *Love of Pleaſure* in the lower Senſe of the Word. In order however to juſtify this Reliſh, the Mind, as it becomes open to *higher* Perceptions of *Beauty* and *Good*, borrows from thence a nobler Set of *Images*, as *fine Taſte*, *Generoſity*, *ſocial Affection*, *Friendſhip*, *good Fellowſhip*, and the like; and, by dreſſing out the old Purſuits with theſe new Ornaments, gives them an additional Dignity and Luſtre. By theſe ways the *Deſire of a Table*, *Love of Finery*, *Intrigue*, and *Pleaſure*, are vaſtly increaſed beyond their natural Pitch, having an Impulſe combined of the Force of the *natural* Appetites and of the ſuper-added Strength of thoſe *Paſſions* which tend to the *Moral* Species.—When the Mind becomes more ſenſible to thoſe Objects or Appearances, in which it perceives *Beauty*, *Uniformity*, *Grandeur*, and *Harmony*, as fine Cloaths, elegant Furniture, Plate, Pictures, Gardens, Houſes, Equipage, the Beauty of Animals, and particularly the Attractions of the Sex; to theſe Objects the Mind is led by *Nature*, or taught by *Cuſtom*, the *Opinion* and *Example* of others, to annex certain Ideas of *Moral Character*, *Dignity*, *Decorum*, *Honour*, *Liberality*, *Tenderneſs*, and *Active* or *Social Enjoyment*. The Conſequence of this Aſſociation is, that the Objects to which theſe are annexed, muſt riſe in their Value, and be purſued with proportionable Ardor. The *Enjoyment* of them is often attended with *Pleaſure*, and the mere *Poſſeſſion* of them, where that is wanting, frequently draws Reſpect from one's Fellow-creatures: this *Reſpect* is, by many, thought equivalent to the Pleaſure of *Enjoyment*. Hence it happens that the Idea of *Happineſs* is connected with the mere *Poſſeſſion*, which is therefore eagerly ſought after, without any Regard to the *generous Uſe*, or *honourable Enjoyment*. Thus the Paſſion reſting on the *Means*, not the *End*, *i. e.* loſing ſight of its *natural* Object, becomes wild and extravagant.

In heightening the Pleaſures of Beauty, Harmony, &c.

In

In raiſing the Value of external Symbols, &c.

In fine, any *Object*, or *External Denomination*, a *Staff*, a *Garter*, a *Cup*, a *Crown*, a *Title*, may become a *Moral* Badge or Emblem of *Merit*, *Magnificence* or *Honour*, according as theſe have been found, or thought by the Poſſeſſors or Admirers of them to accompany them; yet, by the Deception formerly mentioned, the *Merit* or the *Conduct* which entitled, or ſhould entitle, to thoſe Marks of Diſtinction, ſhall be forgot or neglected, and the *Badges* themſelves be paſſionately affected, or purſued, as including every Excellency. If theſe are attained by any means, all the Concomitants which *Nature*, *Cuſtom*, or *Accidents* have joined to them, will be ſuppoſed to follow of courſe. Thus, *Moral Ends*, with which the unhappy Admirer is apt to colour over his Paſſion and Views, will, in his opinion, juſtify the moſt *Immoral Means*, as *Proſtitution*, *Adulation*, *Fraud*, *Treachery*, and every Species of *Knavery*, whether more open or more diſguiſed.

In heightening the Value of Wealth, Power, &c.

When Men are once engaged in *Active* Life, and find that *Wealth* and *Power*, generally called INTEREST, are the great Avenues to every kind of Enjoyment, they are apt to throw in many engaging *Moral Forms* to the Object of their Purſuit, in order to juſtify their Paſſion, and varniſh over the Meaſures they take to gratify it, as *Independency on the Vices* or *Paſſions* of others, *Proviſion* and *Security to themſelves* and *Friends*, *Prudent Oeconomy* or *well-placed Charity*, *Social Communication*, *Superiority to their Enemies*, who are all Villains, *honourable Service*, and many other Ingredients of *Merit*. To attain ſuch Capacities of *Uſefulneſs* or *Enjoyment*, what Arts, nay what Meanneſſes can be thought blameable by thoſe cool Purſuers of Intereſt?—Nor have they, whom the gay World is pleaſed to indulge with the Title of *Men of Pleaſure*, their Imaginations leſs pregnant with *Moral Images*, with which they never fail to ennoble, or, if they cannot do that, to palliate their groſs Purſuits. Thus *Admiration of Wit*, of *Sentiments* and *Merit*, *Friendſhip*, *Love*, *generous Sympathy*, *mutual Confidence*, *giving* and *receiving Pleaſure*, are the ordinary Ingredients with which they ſeaſon their Gallantry and pleaſurable Entertainments; and by which they impoſe on themſelves and endeavour to impoſe on others, that *their Amours* are the joint Iſſue of Good-ſenſe and Virtue.

Theſe

Its Influence on all the Paſſions.

Theſe *Aſſociations*, variouſly combined and proportioned by the *Imagination*, form the chief *private* Paſſions, which govern the Lives of the Generality, as the *Love of Action*, of *Pleaſure*, *Power*, *Wealth*, and *Fame*; they influence the *defenſive*, and affect the *public Paſſions*, and raiſe *Joy* or *Sorrow*, as they are gratified or diſappointed. So that in effect, theſe Aſſociations of *Good* and *Evil*, *Beauty* and *Deformity*, and the Paſſions they raiſe, are the main *Hinges* of *Life* and *Manners*, and the great *Sources* of our *Happineſs* or *Miſery*. It is evident, therefore, that the whole of *Moral Culture* muſt depend on giving a right Direction to the *Leading Paſſions*, and duly proportioning them to the *Value* of the *Objects* or *Goods* purſued, under what Name ſoever they may appear.

Moral Culture, by correcting our Taſte or Imagination.

Now, in order to give them this *right Direction* and *due Proportion*, it appears, from the foregoing Detail, that thoſe *Aſſociations* of Ideas, upon which the Paſſions depend, muſt be *duly* regulated; that is to ſay, as an exorbitant Paſſion for *Wealth*, *Pleaſure*, or *Power*, flows from an *Aſſociation* or *Opinion* that more *Beauty* and *Good*, whether *Natural* or *Moral*, enters into the Enjoyment or Poſſeſſion of them, than really belongs to either; *therefore*, in reſtoring thoſe Paſſions to their juſt Proportion, we muſt begin with correcting the *Opinion*, or breaking the *falſe Aſſociation*, or, in other words, we muſt decompound the *complex Phantom* of *Happineſs* or *Good*, which we fondly admire; diſunite thoſe Ideas, that have no natural Alliance; and ſeparate the *Original* Idea of *Wealth*, *Power*, or *Pleaſure*, from the foreign Mixtures incorporated with it, which enhance its Value, or give it its chief Power to enchant and ſeduce the Mind. For inſtance, let it be conſidered how poor and inconſiderable a thing *Wealth* is, if it be diſjoined from *real Uſe*, or from Ideas of *Capacity* in the Poſſeſſor *to do good*, from *Independency*, *Generoſity*, *Proviſion for a Family* or *Friends*, and *Social Communication* with others. By this *Standard* let its true Value be fixed; let its Miſapplication, or unbenevolent Enjoyment be accounted ſordid and infamous; and nothing worthy or eſtimable be aſcribed to the *mere Poſſeſſion* of it, which is not borrowed from its *generous Uſe*.

By Selfe-real, and Counter-Proofs.

If that *complex* Form of *Good* which is called *Pleaſure*, engages us, let it be analyſed into its conſtituent Principles, or thoſe Allurements it draws from the *Heart* and *Imagination*, in order to heighten the low part

of

of the Indulgence; let the *ſeparate* and *comparative* Moment of each be diſtinctly aſcertained, and deduced from that groſs part, and this Remainder of the accumulative Enjoyment will dwindle down into a poor, inſipid, tranſitory Thing. In proportion as the *Opinion* of the *Good* purſued abates, the *Admiration* muſt decay, and the *Paſſion* loſe Strength of courſe. One effectual way to lower the *Opinion*, and conſequently to weaken the *Habit* founded on it, is to practiſe leſſer pieces of Self-denial, or to abſtain, to a certain pitch, from the Purſuit or Enjoyment of the favourite Object; and, that this may be the more eaſily accompliſhed, one muſt avoid thoſe Occaſions, that Company, thoſe Places, and the other Circumſtances that enflamed *one* and endeared the *other*. And, as a *Counter-proceſs*, let *higher* or even *different* Enjoyments be brought in view, other Paſſions played upon the former, different Places frequented, other Exerciſes tried, Company kept with Perſons of a different, or more correct way of thinking, both in *Natural* and *Moral* Subjects.

By a ſound and natural Education.

As much depends on our ſetting out well in Life, let the *Youthful* Fancy, which is apt to be very florid and luxuriant, be early accuſtomed, by *Inſtruction*, *Example*, and ſignificant *Moral Exerciſes*, nay by Looks, Geſtures, and every other Teſtimony of juſt Approbation or Blame, to annex Ideas of *Merit*, *Honour* and *Happineſs*, not to *Birth*, *Dreſs*, *Rank*, *Beauty*, *Fortune*, *Power*, *Popularity*, and the like *outward* Things, but to *Moral* and *truly virtuous Qualities*, and to thoſe *Enjoyments* which ſpring from a well-informed Judgment, and a regular Conduct of the Affections, eſpecially thoſe of the *ſocial* and *diſintereſted* kind. Such dignified Forms of *Beauty* and *Good*, often ſuggeſted, and, by moving Pictures and Examples, warmly recommended to the *Imagination*, enforced by the Authority of *Conſcience*, and demonſtrated by *Reaſon* to be the ſureſt Means of Enjoyment, and the only independent, undeprivable and durable Goods, will be the beſt Counter-balance to meaner Paſſions, and the firmeſt Foundation and Security to Virtue.

By rightly ſtudying Human Nature.

It is of great Importance to the forming a *juſt Taſte*, or pure and large Conceptions of Happineſs, to ſtudy and underſtand *Human Nature* well, to remember what a complicated Syſtem it is, particularly to have deeply imprinted on our Mind that GRADATION of *Senſes*, *Faculties*, and *Powers of Enjoyment* formerly mentioned, and the *Subordination* of *Goods* reſulting from thence, which Nature points out,

out, and the Experience of Mankind confirms; who, when they think ſeriouſly, and are not under the immediate Influence of ſome violent Prejudice or Paſſion, prefer not the Pleaſures of *Action*, *Contemplation*, *Society*, and moſt *Exerciſes* and *Joys* of the *Moral* kind, as *Friendſhip*, *Natural Affection*, and the like, to all *Senſual* Gratifications whatſoever? Where the different Species of Pleaſure are blended into *one Complex Form*, let them be accurately diſtinguiſhed, and be referred each to its proper *Faculty* and *Senſe*, and examined apart what they have peculiar, what common with others, and what foreign and adventitious. Let *Wealth*, *Grandeur*, *Luxury*, *Love*, *Fame*, and the like, be tried by this Teſt, and their true Alloy will be found out. — Let it be farther conſidered, whether the Mind may not be eaſy and enjoy itſelf greatly, though it want many of thoſe Elegancies and Superfluities of Life which ſome poſſeſs, or that Load of Wealth and Power which others eagerly purſue, and under which they groan. Let the Difficulty of attaining, the Precarioufneſs of poſſeſſing, and the many Abatements in enjoying, over-grown Wealth and envied Greatneſs, of which the weary Poſſeſſors ſo frequently complain, as the Hurry of Buſineſs, the Burthen of Company, of paying Attendance to the *Few*, and giving it to the *Many*, the Cares of keeping, the Fears of loſing, and the Deſires of increaſing what they have, and the other Troubles which accompany this pitiful Drudgery and pompous Servitude, let theſe and the like Circumſtances be often conſidered, that are conducive to the removing or leſſening the *Opinion* of ſuch Goods, and the attendant *Paſſion* or *Set of Paſſions* will decay of courſe.

By comparing the Moment and Abatements of different Goods.

Let the peculiar Bent of our Nature and Character be obſerved, whether we are moſt inclined to form Aſſociations and reliſh Objects of the *Senſible*, *Intellectual*, or *Moral* kind. Let that which has the Aſcendant be particularly watched, let it be directed to right Objects, be improved by proportioned Exerciſes, and guarded by proper Checks from an oppoſite Quarter. Thus, the *Senſible* turn may be exalted by the *Intellectual*, and a Taſte for the Beauty of the *fine Arts*, and both may be made ſubſervient to convey and rivet Sentiments highly *Moral* and *Public-ſpirited*. This inward Survey muſt extend to the *Strength* and *Weakneſſes* of one's Nature, one's *Condition*, *Connections*, *Habitudes*, *Fortune*, *Studies*, *Acquaintance*, and the other Circumſtances of one's Life, from which every Man will form the juſteſt Eſtimate of his

By obſerving our Temperament and Character, &c.

his own Diſpoſitions and Character, and the beſt Rules for correcting and improving them. And, in order to do this with more advantage, let thoſe *Times*, or *critical Seaſons* be watched, when the Mind is beſt diſpoſed towards a Change, and let them be improved by vigorous *Reſolutions*, *Promiſes*, or whatever elſe will engage the Mind to perſevere in Virtue. Let the *Conduct*, in fine, be often reviewed, and the *Cauſes* of its *Corruption* or *Improvement* be carefully obſerved.

By frequent Moral Exerciſes.

It will greatly conduce to refine the *Moral Taſte* and ſtrengthen the *Virtuous Temper*, to accuſtom the Mind to the frequent Exerciſe of *Moral Sentiments* and *Determinations*, by reading *Hiſtory*, *Poetry*, particularly of the *Picturesque* and *Dramatic* kind, the Study of the *fine Arts*; by converſing with the moſt eminent for Good-ſenſe and Virtue; but above all, by frequent and repeated Acts of *Humanity*, *Compaſſion*, *Friendſhip*, *Politeneſs*, and *Hoſpitality*. It is Exerciſe gives Health and Strength. He that reaſons moſt frequently becomes the wiſeſt, and moſt enjoys the Pleaſures of Wiſdom. He who is moſt often affected by Objects of Compaſſion in *Poetry*, *Hiſtory*, or *real Life*, will have his Soul moſt open to Pity, and its delightful Pains and Duties. So he alſo who practiſes moſt diligently the Offices of Kindneſs and Charity, will by it cultivate that Diſpoſition, from whence all his Pretenſions to perſonal Merit muſt ariſe, his preſent and his future Happineſs.

By an honeſt Employment.

An uſeful and honourable Employment in Life will adminiſter a thouſand Opportunities of this kind, and greatly ſtrengthen a Senſe of Virtue and good Affections, which muſt be nouriſhed by right Training, as well as our Underſtandings. For ſuch an Employment, by enlarging one's Experience, giving an Habit of Attention and Caution, or obliging one from Neceſſity or Intereſt, to keep a Guard over the Paſſions, and ſtudy the outward Decencies and Appearances of Virtue, will by degrees produce good Habit, and at length inſinuate the Love of Virtue and Honeſty for its own Sake.

By viewing Men and Manners in a fair Light.

It is a great Inducement to the Exerciſe of Benevolence to view *Human Nature* in a favourable Light, to obſerve the Characters and Circumſtances of Mankind on the *faireſt* Sides, to put the beſt Conſtructions on their Actions they will bear, and to conſider them as the Reſult of *partial* and *miſtaken*, rather than *ill* Affections,

fections, or, at worſt, as the Exceſſes of a pardonable Self-love, ſeldom or never the Effect of pure Malice.

By Conſideration and pious Exerciſes.

Above all, the *Nature* and *Conſequences* of *Virtue* and *Vice*, their Conſequences being the *Law* of our Nature and Will of Heaven; the Light in which they appear to our Supreme *Parent* and *Lawgiver*, and the Reception they will meet with from him, muſt be often attended to. The Exerciſes of *Piety*, as *Adoration*, and *Praiſe* of the *Divine* Excellency, *Invocation* of, and *Dependence* on his Aid, *Confeſſion*, *Thankſgiving*, and *Reſignation*, are habitually to be indulged, and frequently performed, not only as *medicinal*, but highly *improving* to the Temper.

By juſt Views of Human Life and its Connection with a future.

To conclude: It will be of admirable Efficacy towards eradicating *bad* Habits, and implanting *good* ones, frequently to contemplate *Human Life*, as the great *Nurſery* of our *future* and *immortal Exiſtence*, as that *State* of *Probation*, in which we are to be *educated* for a *Divine Life*. To remember, that our *Virtues* or *Vices* will be *immortal* as ourſelves, and influence our *future* as well as our *preſent* Happineſs—and therefore, that every Diſpoſition and Action is to be regarded as pointing beyond the *preſent* to an *immortal* Duration. An habitual Attention to this wide and important *Connection* will give a vaſt Compaſs and Dignity to our Sentiments and Actions, a noble Superiority to the Pleaſures and Pains of Life, and a generous Ambition to make our *Virtue* as *immortal* as our *Being*.

SECT. II.

Motives to Virtue from perſonal Happineſs.

Motives from perſonal Happineſs.

WE have already conſidered our *Obligations* to the Practice of *Virtue*, ariſing from the *Conſtitution* of our Nature, by which we are led to *approve* a certain *Order* and *Oeconomy* of *Affections*, and a certain *Courſe of Action* correſpondent to it.†—But beſides this, there are ſe-

† *Vid. Book* I. [illegible]

veral Motives, which ſtrengthen and ſecure Virtue, though not themſelves of a *Moral* kind. Theſe are, its *Tendency to perſonal Happineſs*, and the *contrary Tendency of Vice*. "Perſonal Happineſs ariſes, either from the State of a Man's "own Mind, or from the State and Diſpoſition of external "Cauſes towards him."

Happineſs of Virtue from within.

We ſhall firſt examine the "Tendency of "Virtue to Happineſs with reſpect to the State "of a Man's own Mind."—This is a Point of the utmoſt Conſequence in Morals, becauſe, unleſs we can convince ourſelves, or ſhew to others, that, by doing our *Duty*, or fulfilling our *Moral Obligations*, we conſult the greateſt Satisfaction of our own Mind, or our higheſt Intereſt on the whole, it will raiſe ſtrong and often unſurmountable Prejudices againſt the Practice of Virtue, eſpecially whenever there ariſes any Appearances of *Oppoſition* between our *Duty*, and our *Satisfaction* or *Intereſt*. To Creatures ſo deſirous of Happineſs, and averſe to Miſery, as we are, and often ſo oddly ſituated amidſt contending Paſſions and Intereſts, it is neceſſary that Virtue appear not only an *honourable*, but a *pleaſing* and *beneficent* Form. And in order to juſtify our Choice to ourſelves, as well as before others, we muſt ourſelves feel and be able to avow in the Face of the whole World, that *her* Ways are Ways of Pleaſantneſs, and her Paths the Paths of Peace. This will ſhew, beyond all Contradiction, that we not only approve, but can give a ſufficient Reaſon for what we do.

Influence of Vice on the Temper of the Mind.

Let any Man, in a cool Hour, when he is diſengaged from Buſineſs, and undiſturbed by Paſſion, as ſuch cool Hours will ſometimes happen, ſit down, and ſeriouſly reflect with himſelf what State or Temper of Mind he would chuſe to feel and indulge, in order to be eaſy and to enjoy himſelf. Would he chuſe, for that purpoſe, to be in a conſtant Diſſipation and Hurry of Thought; to be diſturbed in the Exerciſe of his Reaſon; to have various, and often interfering Phantoms of Good playing before his Imagination, ſoliciting and diſtracting him by turns, now ſoothing him with amuſing Hopes, then torturing him with anxious Fears; and to approve this Minute what he ſhall condemn the next? Would he chuſe to have a ſtrong and painful Senſe of every petty Injury; quick Apprehenſions of every impending Evil; inceſſant and inſatiable Deſires of Power, Wealth, Honour, Pleaſure; an irreconcileable Antipathy againſt all Competitors and Rivals; inſolent and tyrannical Diſ-

Diſpoſitions to all below him; fawning, and at the ſame time envious, Diſpoſitions to all above him; with dark Suſpicions and Jealouſies of every Mortal? Would he chuſe neither to love nor be beloved of any, to have no Friend in whom to confide, or with whom to interchange his Sentiments or Deſigns; no Favourite, on whom to beſtow his Kindneſs, or vent his Paſſions; in fine, to be conſcious of no Merit with Mankind, no Eſteem from any Creature, no good Affection to his Maker, no Concern for, nor Hopes of his Approbation; but inſtead of all theſe, to hate, and know that he is hated, to contemn, and know that he is contemned by all; by the Good, becauſe he is ſo unlike; and by the Bad, becauſe he is ſo like themſelves; to hate or to dread the very Being that made him; and in ſhort, to have his Breaſt the Seat of Pride and Paſſion, Petulance and Revenge, deep Melancholy, cool Malignity, and all the other Furies that ever poſſeſſed and tortured Mankind?—Would our calm Enquirer after Happineſs pitch on ſuch a State, and ſuch a Temper of Mind, as the moſt likely means to put him in poſſeſſion of his deſired Eaſe and Self-enjoyment?

Influence of Virtue on the Temper.

Or would he rather chuſe a ſerene and eaſy Flow of Thought; a Reaſon clear and compoſed; a Judgment unbiaſſed by Prejudice, and undiſtracted by Paſſion; a ſober and well-governed Fancy, which preſents the Images of Things true and unmixed with deluſive and unnatural Charms, and therefore adminiſters no improper or dangerous Fuel to the Paſſions, but leaves the Mind free to chuſe or reject, as becomes a reaſonable Creature; a ſweet and ſedate Temper, not eaſily ruffled by Hopes or Fears, prone neither to Suſpicion nor Revenge, apt to view Men and Things in the faireſt Lights, and to bend gently to the Humours of others rather than obſtinately to contend with them? Would he chuſe ſuch Moderation and Continence of Mind, as neither to be ambitious of *Power*, fond of *Honours*, covetous of *Wealth*, nor a Slave to *Pleaſure*; a Mind of courſe neither elated with Succeſs, nor dejected with Diſappointment; ſuch a modeſt and noble Spirit as ſupports Power without Inſolence, wears Honour without Pride, uſes Wealth without Profuſion or Parſimony; and rejoices more in giving than in receiving Pleaſure; ſuch Fortitude and Equanimity as riſes above Misfortunes, or turns them into Bleſſings; ſuch Integrity and Greatneſs of Mind, as neither flatters the Vices, nor triumphs over the Follies of Men; as equally ſpurns Servitude and Tyranny, and will neither engage in low Deſigns, nor abet them in others? Would he

chuſe, in fine, ſuch Mildneſs and Benignity of Heart as takes part in all the Joys, and refuſes none of the Sorrows of others; ſtands well-affected to all Mankind; is conſcious of meriting the Eſteem of all, and of being beloved by the beſt; a Mind which delights in doing good without any Show, and yet arrogates nothing on that account, rejoices in loving and being beloved by its Maker, acts ever under his Eye, reſigns itſelf to his Providence, and triumphs in his Approbation?—Which of theſe Diſpoſitions would be his Choice, in order to be contented, ſerene and happy!—The *former* Temper is VICE, the *latter* VIRTUE. Where *One* prevails, there MISERY prevails, and by the Generality is acknowledged to prevail. Where the *other* reigns, there HAPPINESS reigns, and by the Confeſſion of Mankind is acknowledged to reign. The *Perfection* of either Temper is *Miſery*, or *Happineſs in Perfection*. THEREFORE every *Approach* to *either Extreme*, is an *Approach* to *Miſery*, or to *Happineſs*; that is to ſay, every *Degree* of *Vice* or *Virtue* is accompanied with a *proportionable Degree* of *Miſery* or *Happineſs*.

An Objection from an imaginary Coalition of Virtue and Vice.

But many are of opinion, and by their Practice ſeem to avow the Opinion, that, by blending or ſoftening the Extremes, and artfully reconciling *Virtue* with *Vice*, they bid fairer to ſtrike a juſt *Medium* of Happineſs, to paſs more ſmoothly through Life, and to have more Reſources in the preſent embarraſſed Scene. HONESTY (they acknowledge) "is, in the main, "the beſt *Policy*, but it is often too blunt and ſurly, and "always too ſcrupulous, and therefore to temper and "ſeaſon it with a little diſcreet Craft in critical and well-"choſen Conjunctures, will, they think, make it more pa-"latable to others and more profitable to one's ſelf. *Kind* "Affection is a good Thing in its own Place, and when it "coſts a Man nothing; but *Charity* begins at home; and "one's Regard for others muſt ſtill look that way, and be "ſubſervient to the main Chance. Beſides, why ſuffer un-"neceſſary Diſquiet on the Account of others? Our own "Happineſs is Charge enough to us; and if we are not to be "happy till others are ſo too, it is a mere *Utopian* Dream ever "to expect it. One would not chuſe to do Ill for the ſake "of Ill, but when *Neceſſity* requires it, the *leſſer* Good muſt "ſubmit to the *greater*, that is, to our own *perſonal* Good; "for in it, by the *firſt* and *fundamental* Law of our Nature, "we are moſt intereſted. By ſuch a Conduct we ſhall have "leaſt Reaſon to accuſe ourſelves, be moſt eaſy within, and

"beſt

" beſt ſecured againſt the Misfortunes and Aſſaults of " others."

The Temper and Condition of Half-honeſty or Knavery.

This is the Language of great Partiality of Thought, as well as great Partiality of Heart. —But as it is one of the main Forts in which *Selfiſhneſs* and *Knavery* uſe to intrench themſelves, it may be worth while to beat it down, to make way for the full Triumphs of their fair Adverſary. That Men may neglect, or hurt their own Intereſt by an *indiſcreet* Concern about that of others — that *Honeſty* may ſometimes degenerate into a *blunt Surlineſs*, or a *peeviſh Scrupuloſity* — that important Occaſions may demand the Sacrifice of a *leſs* public, to a *greater private* Good—that it were Folly to make one's ſelf miſerable, becauſe others are not ſo happy as one would wiſh, we do not deny. But is there not the juſteſt reaſon to ſuſpect, that the *diſhoneſt*, or the *half-honeſt* and *contracted* Turn of Mind here pleaded for, is the very reverſe of that *Temper* which begets true Satisfaction and Self-enjoyment, and of the *Character* which entitles to Credit, Security, and Succeſs? The Man who doubts and heſitates, whether he may not, in ſome Inſtances, play the Knave, cannot, in any Senſe, be termed honeſt. And ſurely, he cannot approve himſelf for that Conduct, which, by an inviolable Law of his Nature, he is compelled to condemn; and if he cannot approve himſelf for his Conduct, he is deprived of one of the ſweeteſt Feelings of the human Heart. But ſuppoſe he could diſguiſe the immoral Deed or Diſpoſition under the fair Name of ſome Virtue, or the Maſk at leaſt of a neceſſary Self-regard, as is often done, to elude the aweful Deciſion of Conſcience, which when uninfluenced is always unerring; yet he muſt be conſcious he cannot ſtand the Teſt of *Judges leſs intereſted* than himſelf; and *muſt therefore* be under conſtant Dread of Diſcovery, and conſequently of public Cenſure, with all its mortifying Attendants. This Dread muſt be ſo much the greater, if he has had Companions or Tools of his Knavery, which generally it muſt have in order to ſupply its native Impotence and Deficiency. This then is to be *inſecure*, *obnoxious*, and *dependent*, and that too on the worſt Set of Men, on whom one can have no hold but by their Vices, which, like undiſciplined wild Beaſts, often turn upon their Maſters. Such an *inſecure*, *obnoxious*, *dependent* State, muſt neceſſarily be a State of *Suſpicion*, *Servitude*, and *Fear*, which inſtead of begetting Serenity and Self-enjoyment, are the Parents of Diſ-

quiet and Misery. Besides, the fluctuating perpetually between opposite Principles, the Violence done to a native Sense of Honesty, the Reluctance against the first Advances of young and blushing Knavery, the hot and cold Fits of alternate Virtue and Vice, the Suspense and Irresolution of a Mind distracted between interfering Passions, are the first painful Symptoms of that dreadful Disease which afterwards lays waste every thing goodly and ingenuous, and raises Agonies intolerable to the Patient, and quite inconceivable by others. Whether such an inconsistent Conduct, divided between Vice and Virtue, will serve the Views of Interest proposed by it, will be afterwards examined.

Temper and Condition of the good benevolent Man.

As to the other Part of the Objection, let it be considered, that a Man of an enlarged benevolent Mind, who thinks, feels, and acts for others, is not subject to half the Disquietudes of the contracted selfish Soul; —— finds a thousand Alleviations to soften his Disappointments, which the other wants; — and has a fair Chance for double his Enjoyments. His Desires are moderate, and his Wants few in Comparison of the other's, because they are measured by Nature, which has Limits, not by Fancy or Passion, which has none. He is cautious, without being distrustful or jealous; careful, but not anxious; busy, but not distracted. He tastes Pleasure, without being dissipated; bears Pain, without Dejection or Discontent; is raised to Power, without turning giddy; feels few of the Pains of Competition, and none of the Pains of Envy.

The Alleviations of his Ills.

The principal Alleviations of his Calamities are these:—that, though some of them may have been the Effect of his Imprudence, or Weakness, yet few of them are sharpened by a Sense of Guilt, and none of them by a Consciousness of Wickedness, which surely is their keenest Sting; — that they are common to him with the best of Men;— that they seldom or never attack him quite unprepared, but rather guarded with a Consciousness of his own Sincerity and Virtne, with a Faith and Trust in Providence, and a firm Resignation to its perfect Orders; —— that they may be improved as means of Correction, or Materials to give Scope and Stability to his Virtues;—and to name no more, they are considerably lessened, and often sweetened to him by the general Sympathy of the Wise and Good.

His

His Enjoyments are more numerous, or, if leſs numerous, yet more intenſe than thoſe of the bad Man; for he ſhares in the Joys of others by Rebound; and every Increaſe of *general* or *particular* Happineſs is a real Addition to his own. It is true, his friendly *Sympathy* with others ſubjects him to ſome Pains which the hard-hearted Wretch does not feel; yet to give a looſe to it is a kind of agreeable Diſcharge. It is ſuch a Sorrow as he loves to indulge; a ſort of pleaſing Anguiſh that ſweetly melts the Mind, and terminates in a Self-approving Joy. Though the good Man may want Means to execute, or be diſappointed in the Succeſs of his benevolent Purpoſes, yet, as was formerly * obſerved, he is ſtill conſcious of good Affection, and that Conſciouſneſs is an Enjoyment of a more delightful Savour than the greateſt Triumphs of ſucceſsful Vice. If the *Ambitious*, *Covetous*, or *Voluptuous* are diſappointed, their Paſſions recoil upon them with a Fury proportioned to their Opinion of the Value of what they purſue, and their Hope of Succeſs; while they have nothing within to balance the Diſappointment, unleſs it is a uſeful Fund of Pride, which *however frequently* turns mere Accidents into mortifying Affronts, and exalts Grief into Rage and Frenzy. Whereas the meek, humble, and benevolent Temper is its own immediate Reward, is ſatisfied from within, and as it magnifies greatly the Pleaſure of Succeſs, ſo it wonderfully alleviates, and in a manner annihilates, all Pain for the want of it.

His Enjoyments.

As the good Man is conſcious of loving and wiſhing well to all Mankind, he muſt be ſenſible of his deſerving the Eſteem and Good-will of all; and this ſuppoſed Reciprocation of ſocial Feelings, is, by the very Frame of our Nature, made a Source of very intenſe and enlivening Joys. By this Sympathy of Affections and Intereſts he feels himſelf intimately united with the Human Race; and being ſenſibly *alive* over the whole Syſtem, his Heart receives, and becomes reſponſive to every Touch given to any Part. So that as an eminent *Philoſopher* † finely expreſſes it, he gathers Contentment and Delight from the pleaſed and happy States of thoſe around him, from Accounts and Relations of ſuch Happineſs, from the very Countenances, Geſtures, Voices and Sounds even of Creatures foreign to our kind,

From merited Eſteem and Sympathy.

* *See Book* 2. *Sect.* 2.

† *Vid.* Shaftſb. *Inq. into Virtue, Book* 2.

whoſe Signs of Joy and Contentment he can any way diſcern.

Do not interfere with other Joys.

Nor do thoſe generous Affections ſtop any other natural Source of Joy whatever, or deaden his Senſe of any innocent Gratification. They rather keep the ſeveral *Senſes* and *Powers of Enjoyment* open and diſengaged, intenſe and uncorrupted by Riot or Abuſe; as is evident to any one who conſiders the diſſipated, unfeeling State of Men of *Pleaſure*, *Ambition*, or *Intereſt*, and compares it with the ſerene and gentle State of a Mind at peace with itſelf, and friendly to all Mankind, unruffled by any violent Emotion, and ſenſible to every good-natured and alluring Joy. He who daily dwells with *Temperance* and *Virtue*, thoſe everlaſting Beauties and of the higheſt Order, cannot be inſenſible to the Charms of Society, or Friendſhip, the Attractions of virtuous Love, the Delights of Reading, or to any Beauty of a lower Species, the Unbendings of innocent Mirth, or whatever elſe ſets the Soul at Eaſe, and gives him a Reliſh of his Being. By enjoying himſelf, he is in the beſt Poſture for enjoying every thing elſe. All is pure and well-ordered in ſuch a Heart, and therefore whatever Pleaſure is poured into it has an original Savour, not a ſingle Drop is loſt. For Virtue draws off all but the Dregs, and by mixing ſomething of her own with the moſt ordinary Entertainments, refines them into exalted Enjoyments.

The Miſery of Exceſs in the Private Paſſions.

It were eaſy, by going through the different Sets of Affections mentioned formerly*, to ſhew, that it is only by maintaining the Proportion ſettled there that the Mind arrives at true Repoſe and Satisfaction. If *Fear* exceeds *that* Proportion, it ſinks into Melancholy and Dejection. If *Anger* paſſes juſt Bounds, it ferments into Rage and Revenge, or ſubſides into a ſullen corroding Gloom, which embitters every Good, and renders one exquiſitely ſenſible to every Ill. The *Private* Paſſions, the *Love of Honour* eſpecially, whoſe Impulſes are more generous as its Effects are more diffuſive, are Inſtruments of private Pleaſure; but if they are diſproportioned to our *Wants*, or to the *Value* of their ſeveral Objects, or to the *Balance* of other Paſſions, equally neceſſary, and more amiable, they become Inſtruments of intenſe Pain and Miſery. For, being now deſtitute of that Counter-poiſe which held them at a due pitch,

* *See Book* I. §. 1, 2.

pitch, they grow turbulent, peeviſh, and revengeful, the Cauſe of conſtant Reſtleſſneſs and Torment, ſometimes flying out into a wild delirious Joy, at other times ſettling in a deep ſplenetic Grief. The Concert between Reaſon and Paſſion is then broke: all is Diſſonance and Diſtraction within. The Mind is out of Frame, and feels an Agony proportioned to the Violence of the reigning Paſſion.

In the Public Affections.

The Caſe is much the ſame, or rather worſe, when any of the particular *kind* Affections are out of their natural Order and Proportion; as happens in the caſe of *effeminate Pity*, *exorbitant Love*, *parental Dotage*, or any *Party Paſſion*, where the juſt Regards to Society are ſupplanted. The more *ſocial* and *diſintereſted* the Paſſion is, it breaks out into the wilder Exceſſes, and makes the more dreadful Havock, both within and abroad; as is but too apparent in thoſe Caſes where a falſe Species of *Religion*, *Honour*, *Zeal*, or *Party Rage* has ſeized on the natural Enthuſiaſm of the Mind, and worked it up to Madneſs. It breaks through all Ties, *Natural* and *Civil*, contracts the moſt ſacred and ſolemn Obligations, ſilences every other Affection, whether *Public* or *Private*, and transforms the moſt gentle Natures into the moſt ſavage and inhuman. Such an exorbitant Paſſion is like the enormous Growth of a natural Member, which not only draws from the Nouriſhment of the reſt, but threatens the Mortification of the whole Body, and in the mean time occaſions intolerable Pain and Anguiſh. In fine, all the *natural* Affections, like the animal Spirits, or Humours of a ſtrong Body, if reſtrained from their proper Play, turn furious or melancholic, and generally force their way by ſome violent Diſcharge, no leſs hurtful to the Patient than offenſive to thoſe with whom he is connected.

Happineſs of well-proportioned Paſſions.

Whereas the Man who keeps the *Balance* of *Affection* even, is eaſy and ſerene in his Motions; mild, and yet affectionate; uniform and conſiſtent with himſelf; is not liable to diſagreeable Colliſions of Intereſts and Paſſions; gives always place to the moſt friendly and humane Affections, and never to Diſpoſitions of Acts of Reſentment, but on high Occaſions, when the *Security* of the *private*, or *Welfare* of the *public* Syſtem, or the *great Intereſts* of Mankind neceſſarily require a noble Indignation; and even then he obſerves a juſt Meaſure in Wrath; and laſt of all he proportions every Paſſion to the Value of the Object he affects, or to the Importance of the End he purſues,

To

Sum of the Argument.

To ſum up this Part of the Argument, the *honeſt* and *good* Man has eminently the Advantage of the *knaviſh* and *ſelfiſh* Wretch in every reſpect. The Pleaſures which the *laſt* enjoys flow chiefly from external Advantages and Gratifications; are ſuperficial and tranſitory; daſhed with long Intervals of Satiety, and frequent Returns of Remorſe and Fear; dependent on favourable Accidents and Conjunctures; and ſubjected to the Humours of Men. But the *good* Man is ſatisfied from himſelf; his principal Poſſeſſions lie within, and therefore beyond the Reach of the Caprice of Men or Fortune; his Enjoyments are exquiſite and permanent; accompanied with no inward Checks to damp them, and always with Ideas of Dignity and Self-approbation; may be taſted at any Time and in any Place *. The Gratifications of *Vice* are turbulent and unnatural, generally ariſing from the Relief of Paſſions in themſelves intolerable, and iſſuing in tormenting Reflections; often irritated by Diſappointment, always inflamed by Enjoyment; and yet ever cloyed with Repetition. The Pleaſures of *Virtue* are calm and natural; flowing from the Exerciſe of kind Affections, or delightful Reflections in conſequence of them; not only agreeable in the Proſpect, but in the preſent Feeling; they never ſatiate, or loſe their Reliſh; nay, rather the Admiration of Virtue grows ſtronger every Day; and not only is the Deſire but the Enjoyment heightened by every new Gratification; and unlike to moſt others, it is increaſed, not diminiſhed, by Sympathy and Communication. In fine, the Satisfactions of Virtue may be purchaſed without a Bribe, and poſſeſſed in the humbleſt, as well as the moſt triumphant Fortune; they can bear the ſtricteſt Review, do not change with Circumſtances, nor grow old with Time. Force cannot rob, nor Fraud cheat us of them; and, to crown all, inſtead of abating, they enhance every other Pleaſure.

External Effects of Virtue.

But the happy Conſequences of *Virtue* are ſeen, not only in the Internal Enjoyments it affords a Man, but "in the favourable Diſpoſition of External Cauſes towards him, to "which it contributes."

On the Body.

As VIRTUE gives the ſober Poſſeſſion of one's ſelf and the Command of one's Paſſions, the Conſequence muſt be Heart's Eaſe, and a fine natural Flow of Spirits, which conduce

* *Vid. the late ingenious Dial. on* Happineſs *by* J. H.

more than any thing elſe to Health and long Life.
ent Paſſions, and the Exceſſes they occaſion, gra-
ly impair and wear down the Machine. But the calm
d State of a temperate Mind, and the healthful Exer-
in which *Virtue* engages her faithful Votaries, preſerve
natural Functions in full Vigour and Harmony, and ex-
ate the Spirits, which are the chief Inſtruments of Ac-
. We might add, what will appear perhaps too refined,
as Virtue is the ſound Temperament and beautiful
plexion of the Soul, ſo it even diffuſes ſometimes a con-
al Air of Beauty over the Body, lights up, and ſpreads
the Countenance into a certain Openneſs, Chearfulneſs
Dignity, thoſe natural Irradiations of inward Worth,
ch *Politeneſs*, that *Ape* of *Virtue*, may imitate, but can
r fully attain.—In fine, *Temperance*, which has been called
etimes the *Mother*, and at other times the *Nurſe* of the
ues, is beautifully deſcribed by an ingenious Author *, to
that Virtue without Pride, and Fortune without Envy,
gives Indolence of Body and Tranquillity of Mind; the
Guardian of Youth and Support of old Age, the Tute-
Goddeſs of Health, and univerſal Medicine of Life, that
rs the Head, ſtrengthens the Nerves, enlightens the Eyes,
comforts the Heart.

On one's Fortune, Intereſt, &c.

may by ſome be thought odd to aſſert, *Virtue* is no Enemy to a Man's *Fortune* the preſent State of Things. — But if, by *tune*, be meant a moderate or competent re of *Wealth*, *Power*, or *Credit*, not over-wn Degrees of them, what ſhould hinder the virtuous Man n obtaining that? He cannot cringe or fawn, it is true, he can be civil and obliging as well as the Knave; and ly, his Civility is more alluring, becauſe it has more Man-ſs and Grace in it than the mean Adulation of the other; cannot cheat or undermine, but he may be cautious, pro-nt, watchful of Occaſions, and equally prompt with the ue in improving them; he ſcorns to proſtitute himſelf as ndar to the Paſſions, or as a Tool to the Vices of Man-l, but he may have as ſound an Underſtanding and as d Capacities for promoting their real Intereſts as the veriеſt rt-Slave; and then, he is more faithful and true to thoſe employ him. In the common Courſe of Buſineſs, he the ſame Chances with the Knave of acquiring a For-, and riſing in the World. He may have equal Abilities, equal

* *See* Temple's *Miſcell. Part* 1. *Treat.* 6.

equal Induſtry, equal Attention to Buſineſs; and in other reſpects he has greatly the Advantage of him. People love better to deal with him; they can truſt him more; they know he will not impoſe on them, nor take Advantage of them, and can depend more on his Word than on the Oath or ſtrongeſt Securities of others. Whereas what is commonly called CUNNING, which is the *Offspring* of *Ignorance*, and conſtant *Companion* of *Knavery*, is not only a mean-ſpirited, but a very ſhort-ſighted Talent, and a fundamental Obſtacle in the Road of Buſineſs. It may procure indeed immediate and petty Gains, but it is attended with dreadful Abatements, which do more than over-balance them, both as it ſinks a Man's Credit when diſcovered, and cramps that Largeneſs of Mind, which extends to the remoteſt as well as the neareſt Intereſt, and takes in the moſt durable, equally with the moſt tranſient Gains. It is therefore eaſy to ſee how much a Man's *Credit* and *Reputation*, and conſequently his Succeſs, depend on his Honeſty and Virtue. The truly good Man has no Character to perſonate, no Maſk to wear; his Deſigns are tranſparent, and one Part of his Diſcourſe and Conduct exactly tallies with another. Having no ſordid Views to promote, no mean Paſſions to ſerve, but wiſhing well to every body, and doing all the Good he can, he is intrenched and guarded round by *Innocence* and *Virtue*; and, though he is not ſecured againſt Misfortunes, yet his Character and the Friends his Merit has procured him will frequently retrieve him. Whereas *Tricking*, as one well expreſſes it, is a ſort of Diſguiſe, by which a Man hides himſelf in one Place, and expoſes himſelf in another. Beſides, *Falſhood* and *Roguery* are variable unſettled Things, and the Source of a Conduct both irreſolute and inconſiſtent. They muſt often change hands, and be ever contriving new Expedients as Accidents vary; and one lame Meaſure muſt always limp on after another to ſupport and back it. So that an inexhauſted Fund of Craft is neceſſary to play the Knave to any purpoſe, and to maintain for any time a counterfeit Character. When he is once detected, his Credit is blown for ever; and, unleſs he is a great Maſter in Diſſimulation, his artificial Conduct will ever render him obnoxious to Suſpicion, which is ever ſharp-ſighted. Even the good Man is not ſecure againſt the Attacks of Calumny, but he is armed againſt its Sting. If he cannot ſilence, he will confute Detraction by obſtinately perſiſting in being virtuous and doing good; in time almighty Truth will prevail, and he might extort Veneration from the *Partial*, as well as obtain a chearful Tribute from the

Candid

Candid Judges of Merit. But ſhould the Cloud, in which Malice or Envy may have involved his Virtue, never be entirely diſſipated in his Life, yet Death, that Soother of Envy and the Malevolent Paſſions, will totally diſpel any remaining Gloom, and diſplay his Character in all its genuine and unſtained Glory. For the *Bed* of *Virtue* is a *Bed* of *Honour*, and he who dies in it, cannot die *unlamented* by the *Good*, nor *unreverenced* by the *Bad*.

On one's Peace and Security.

With regard to *Security* and *Peace* with his Neighbours, it may be thought perhaps, that the Man of a quiet forgiving Temper, and a flowing Benevolence and Courteſy, is much expoſed to Injury and Affronts from every proud or peeviſh Mortal, who has the Power or Will to do Miſchief. If we ſuppoſe indeed, this *Quietneſs* and *Gentleneſs* of Nature accompanied with *Cowardice* or *Puſillanimity*, this may often be the Caſe; but in reality, the good Man is bold as a Lion, and ſo much the bolder for being the calmer. Such a Perſon will hardly be a Butt to Mankind. The ill-natured will be afraid to provoke him, and the good-natured will not incline to do it. Beſides, *true Virtue*, which is conducted by Reaſon, and exerted gracefully and without Parade, is a moſt inſinuating and commanding Thing; if it cannot diſarm Malice and Reſentment at once, it will wear them out by Degrees, and ſubdue them at length. How many have, by Favours and prudently yielding, triumphed over an Enemy, who would have been inflamed into tenfold Rage by the fierceſt Oppoſition! In fine, *Goodneſs* is the moſt univerſally popular Thing that can be. Though the Prejudices or Paſſions of Men may ſometimes dreſs it up in the Diſguiſe of Weakneſs, or deface it with unlovely Features, yet let the Maſk be dropt, and the lovely Form appear as it is, the moſt prejudiced will reſpect, the unprejudiced admire and love it, and all will be afraid, or at leaſt aſhamed, to traduce or offend a Thing ſo innocent and ſo God-like.

On one's Family.

To conclude, the good Man may have ſome Enemies, but he will have more Friends, and having given ſo many Marks of private Friendſhip or public Virtue, he can hardly be deſtitute of a Patron to protect, or a Sanctuary to entertain him, or to entertain or protect his Children when he is gone. Tho' he ſhould have little elſe to leave them, he bequeaths them the faireſt, and generally the moſt unenvied Inheritance of a *good Name*, which, like good Seed ſown in the Field of Futurity, will often raiſe up unſolicited Friends, and yield a

Benevolent Harveſt of unexpected Charities. But ſhould the Fragrance of the Parent's Virtue prove offenſive to a perverſe or envious Age, or even draw Perſecution on the friendleſs Orphans, there is *One* in Heaven, who will be more than a Father to them, and recompenſe their Parent's Virtues by ſhowering down Bleſſings on them. The Thoughts of leaving them in ſuch good Hands ſuſtain the honeſt Parent, and make him ſmile in the Agonies of Death; being ſecure that that almighty Friend, who has diſpenſed ſuch a Profuſion of Bounties to himſelf, cannot prove an unkind Guardian, or an unfaithful Truſtee to his fatherleſs Offspring.—This leads to conſider a ſublime Motive, and noble Mould to Virtue, from whence it derives its firmeſt Support, and in which it receives its higheſt Finiſhing and Luſtre.

SECT. III.

Motives to Virtue from the BEING *and* PROVIDENCE *of* GOD.

Two external Motives to Virtue.

BESIDES the intereſting Motive mentioned in the laſt *Section*, there are two great Motives to *Virtue*, ſtrictly connected with *human Life*, and reſulting from the very *Conſtitution* of the *human Mind*. The Firſt is the BEING and PROVIDENCE of GOD; the Second is the IMMORTALITY of the SOUL, with *future Rewards* and *Puniſhments*.

Their Importance.

It appears from *Sect.* 4. of *Book* II. that *Man*, by the *Conſtitution* of his Nature, is deſigned to be a RELIGIOUS Creature. He is intimately connected with the *Deity*, and neceſſarily dependent on him. From that *Connection* and neceſſary *Dependence* reſult various *Obligations* and *Duties*, without fulfilling which, ſome of his ſublimeſt Powers and Affections would be incomplete and abortive. If he be likewiſe an IMMORTAL Creature, and if his *preſent Conduct* ſhall affect his *future Happineſs* in *another* State as well as in the *preſent*, it is evident that we take only a *partial View* of the *Creature* if we leave out this important Property of his Nature,

ture, and make a *partial Eſtimate of human Life*, if we ſtrike out of the Account, or overlook that Part of his Duration which runs out into Eternity.—We ſhall therefore conſider the Motives which ariſe from the former Connection in this *Section*, and thoſe ariſing from the latter in the *next*.

It is evident from the above-mentioned *Section*, * that "to have a Reſpect to the *Deity* in our Temper and Conduct, to *venerate* and *love* his *Character*, to *adore* his *Goodneſs*, to *depend upon* and *reſign* ourſelves to his *Providence*, to *ſeek* his *Approbation*, and *act* under a *Senſe* of his *Authority*, is a *fundamental Part* of *Moral Virtue*, and the *Completion* of the *higheſt Deſtination* of *our Nature*." *Piety.*

But as *Piety* is an eſſential Part of Virtue, ſo likewiſe it is a *great Support* and *Enforcement* to the Practice of it. To contemplate and admire a Being of ſuch tranſcendent Dignity and Perfection as GOD, muſt naturally and neceſſarily open and enlarge the Mind, give a Freedom and Ampleneſs to its Powers, and a Grandeur and Elevation to its Aims. For, as an excellent *Divine* † obſerves, "the Greatneſs of an Object, and the Excellency of the Act of any AGENT about a tranſcendent Object, doth mightily tend to the Enlargement and Improvement of his Faculties." Little Objects, mean Company, mean Cares, and mean Buſineſs cramp the Mind, contract its Views, and give it a creeping Air and Deportment. But when it ſoars above mortal Cares and mortal Purſuits, into the Regions of Divinity, and converſes with the greateſt and beſt of Beings, it ſpreads itſelf into a wider Compaſs, takes higher Flights in Reaſon and Goodneſs, and becomes God-like in its Air and Manners. *Virtue* is, if one may ſay ſo, both the *Effect* and *Cauſe* of Largeneſs of Mind. It requires that one think freely, and act nobly. Now what can conduce more to Freedom of Thought and Dignity of Action, than to conceive worthily of God, to reverence and adore his unrivalled Excellency, to imitate and tranſcribe that Excellency into our own Nature, to remember our Relation to him, and that we are the Image and Repreſentatives of his Glory to the reſt of the Creation? Such Feelings and Exerciſes muſt and will make us ſcorn all Actions that are baſe, unhandſome, or unworthy our State; and the Relation we ſtand in to God, will irradiate *A Support to Virtue.*

* *Sect.* 4. *Book* II.

† *Vid.* Whichcot's *Serm. Part* II. *Serm.* VI.

diate the Mind with the Light of Wiſdom, and ennoble it with the Liberty and Dominion of Virtue.

A Guard and Enforcement to Virtue.

The Influence and Efficacy of *Religion* may be conſidered in another Light. We all know that the Preſence of a Friend, a Neighbour, or any Number of Spectators, but eſpecially an auguſt Aſſembly of them, uſes to be a conſiderable Check upon the Conduct of one who is not loſt to all Senſe of Honour and Shame, and contributes to reſtrain many irregular Sallies of Paſſion. In the ſame manner we may imagine, that the Awe of ſome ſuperior Mind, who is ſuppoſed privy to our ſecret Conduct, and armed with full Power to reward or puniſh it, will impoſe a Reſtraint on us in ſuch Actions as fall not under the Controul or Animadverſion of others. If we go ſtill higher, and ſuppoſe our inmoſt Thoughts and darkeſt Deſigns, as well as our moſt ſecret Actions, to lie open to the Notice of the Supreme and Univerſal Mind, who is both the *Spectator* and *Judge* of human Actions, it is evident that the Belief of ſo auguſt a Preſence, and ſuch aweful Inſpection, muſt carry a Reſtraint and Weight with it proportioned to the Strength of that Belief, and be an additional Motive to the Practice of many Duties which would not have been performed without it.—As our *Senſe* of *Honour* or *Blame* is increaſed in proportion to the Eſteem we have of thoſe who beſtow either, ſhall we ſuppoſe no Senſibility to the Applauſe, or Cenſure of him whom we believe to be the *Judge* as well as *Standard* of all Perfection? And if we ſuppoſe ſuch a Senſibility, can we deny that it will operate on every Mind which feels it, both as an *Incentive* to deſerve that Applauſe, and as a *Guard* to avoid that Cenſure? We may ſuppoſe ſome Caſes in which the virtuous Man, through the Force of Prejudices againſt him, and becauſe of the falſe Lights in which his Actions are viewed, may be tempted to renounce the honeſt Cauſe by which he happens to incur Reproach or Ridicule. But if he can make his Appeal from the Opinions of Men to the Searcher of Hearts, it is evident that the Conſciouſneſs of ſo high a Sanction may bear him out in his Courſe, and conſequently be a Support to his Virtue, and in due time may teach him to deſpiſe the Striſe of Tongues, nay the utmoſt Efforts of Malice and Envy.

In Caſes of the greateſt Trial.

But a good Man may likewiſe fall a Sacrifice to Power or to Injuſtice; his Life may be a Series of Misfortunes, and his Virtue may have expoſed him to many of them; the Conſtitution and State of his Body, and peculiar

culiar Preſſures on his Mind may incapacitate him for enjoying the natural Fruits of Virtue, at leaſt with an high Reliſh. How ſupporting in ſuch a Caſe, nay how preſervative muſt it be to his Integrity, and what an Antidote againſt that Gloom and Fretfulneſs which are apt to invade the Mind in ſuch Circumſtances of Trial, to believe that infinite Wiſdom and Goodneſs preſide in the Univerſe;—that every Event being under their Direction is the Cauſe or Conſequence of ſome greater Good to him, or to the whole;—that thoſe Misfortunes which befall him are appointed by Heaven to correct his Follies, to improve or ſecure his Virtues, and conſequently to increaſe his Happineſs! Theſe Sentiments thoroughly felt, muſt and will ſerve as a Charm to ſooth his Sorrows, and confirm his Loyalty and Reſignation to the Supreme Providence.

In fine, let the Diſpoſition of external Cauſes be ever ſo unfavourable to the good Man, yet, as he is conſcious that the Almighty Governor is his *Parent*, *Patron* and *Friend*, he may reſt ſecure that he will either ſuſtain and guard him in the midſt of his Troubles, or direct and over-rule them to his greateſt Good.

Exerciſes of Piety improving to Virtue.

It may be obſerved farther, that "to live under an habitual Senſe of the *Deity* and his great "*Adminiſtration*, is to be converſant with *Wiſdom*, "*Order* and *Beauty*, in the higheſt Subjects, and "to receive the delightful Reflections and benign "Feelings which theſe excite, while they irradiate "upon him from every Scene of Nature and Providence." How improving muſt ſuch Views be to the Mind, in dilating and exalting it above thoſe puny Intereſts and Competitions which agitate and enflame the Bulk of Mankind againſt each other! What genial and propitious Influence on the Temper muſt the *Admiration* and *Love* of *Divine Goodneſs* have, when it is conſidered as diffuſed through infinite Space, to infinite Races of Creatures, and ſtretching from Eternity to Eternity! What Candor, Mildneſs, Benignity of Heart, and what Grandeur as well as Sweetneſs of Manners muſt it inſpire? To conclude, with what alluring and commanding Energy muſt his *Benefits* call forth our *Gratitude*, his *Example* our *Imitation*, his *Wiſdom*, *Power* and *Goodneſs*, our *Confidence* and *Hope*, his *Applauſe* our *Ambition* to deſerve it? And how muſt his *Preſence* ſtrongly believed, or rather powerfully *felt*, enliven and fortify theſe and every other Principle of Virtue?

SECT. IV.

Motive to Virtue, from the Immortality of the Soul, &c.

Metaphyſical Arguments for its Immortality.

THE other Motive mentioned was the *Immortality* of the Soul, with *future Rewards* and *Puniſhments*. The *metaphyſical* Proofs of the Soul's Immortality, are commonly drawn from its *ſimple*, *uncompounded*, and *indiviſible* Nature, from whence it is concluded, that it cannot be corrupted or extinguiſhed by a Diſſolution or Deſtruction of Parts,—from its having a *Beginning* of *Motion* within itſelf, whence it is inferred, that it cannot diſcontinue and loſe its Motion,—from the different Properties of *Matter* and *Mind*, the *Sluggiſhneſs* and *Inactivity* of *one*, and the immenſe *Activity* of the *other*, its prodigious Flight of *Thought* and *Imagination*, its *Penetration*, *Memory*, *Foreſight*, and *Anticipations* of *Futurity*, from whence it is concluded, that a Being of ſo *divine* a Nature cannot be extinguiſhed. But as theſe metaphyſical Proofs depend on intricate Reaſonings concerning the *Nature*, *Properties*, and *Diſtinctions* of *Body* and *Mind*, with which we are not very well acquainted, they are not obvious to ordinary Underſtandings, and are ſeldom ſo convincing even to thoſe of higher Reach, as not to leave ſome Doubts behind them. Therefore perhaps it is not ſo ſafe to reſt the Proof of ſuch an important Article, on what many may call the Subtilties of School-Learning. Thoſe Proofs which are brought from *Analogy*, from the *moral Conſtitution* and *Phænomena* of the *human Mind*, the *moral Attributes* of God, and the *preſent Courſe of Things*, and which are therefore called the *moral* Arguments, are the plaineſt, and generally the moſt ſatisfying. We ſhall ſelect only one or two from the reſt.

Moral Proof from Analogy.

In tracing the *Nature* and *Deſtination* of any Being, we form the ſureſt Judgment from his *Powers* of *Action*, and the *Scope* and *Limits* of theſe compared with his *State*, or with that *Field* in which they are exerciſed. If this Being paſſes though different States, or Fields of Action, and we find a *Succeſſion* of Powers adapted to the different Periods of his Progreſs, we conclude that he was deſtined for thoſe ſucceſſive States, and reckon his Nature *Progreſſive*. If, beſides the immediate Set of Powers which fit him for Action in his preſent State, we obſerve another Set which appears ſuperfluous, if he was to be

be confined to it, and which point to another or higher one, we naturally conclude, that he is not deſigned to remain in his preſent State, but to advance to that for which thoſe ſupernumerary Powers are adapted. Thus we argue that the *Inſect*, which has Wings forming or formed, and all the Apparatus proper for Flight, is not deſtined always to creep on the Ground, or to continue in the torpid State of adhering to a Wall, but is deſigned in its Seaſon to take its Flight in Air. Without this farther Deſtination, the admirable Mechaniſm of Wings and the other Apparatus, would be uſeleſs and abſurd. The ſame kind of Reaſoning may be applied to Man, while he lives only a ſort of *vegetative* Life in the Womb. He is furniſhed even there with a beautiful Apparatus of Organs, Eyes, Ears, and other delicate Senſes, which receive Nouriſhment indeed, but are in a manner folded up, and have no proper Exerciſe or Uſe in their preſent Confinement.* Let us ſuppoſe ſome intelligent Spectator, who never had any Connection with Man, nor the leaſt Acquaintance with human Affairs, to ſee this odd Phænomenon, a Creature formed after ſuch a manner, and placed in a Situation apparently unſuitable to ſuch various Machinery, muſt he not be ſtrangely puzzled about the Uſe of his complicated Structure, and reckon ſuch a Profuſion of Art and admirable Workmanſhip loſt on the Subject; or reaſon by Way of Anticipation, that a Creature, endued with ſuch various, yet unexerted Capacities, was deſtined for a more enlarged Sphere of Action, in which thoſe latent Capacities ſhall have full Play? The vaſt Variety, and yet beautiful Symmetry and Proportions of the ſeveral Parts and Organs with which the Creature is endued, and their apt Coheſion with, and Dependence on, the curious Receptacle of their Life and Nouriſhment, would forbid his concluding the Whole to be the Birth of Chance, or the bungling Effort of an unſkilful Artiſt, at leaſt would make him demur a while at ſo harſh a Sentence. But if, while he is in this State of Uncertainty, we ſuppoſe him to ſee the Babe, after a few ſucceſsful Struggles, throwing off his Fetters, breaking looſe from his little dark Priſon, and emerging into open Day, then unfolding his recluſe and dormant Powers, breathing in Air, gazing at Light, admitting Colours, Sounds, and all the *fair Variety* of Nature, immediately his Doubts clear up, the Propriety and Excellency of the Workmanſhip dawn upon him with full Luſtre, and the whole Myſtery of the firſt Period is unravelled by the opening of this new Scene. Though in this *ſecond* Period the Creature lives chiefly a kind of *animal* Life, *i. e.* of *Senſe* and *Appetite*, yet by

* *Vid.* Ludov. Viv. *de Rel. Chriſt. Lib.* II. *de Vita Uteri*, &c.

various Trials and Obſervations, he gains Experience, and by the gradual Evolution of the Powers of *Imagination*, he ripens apace for an *higher* Life, for exerciſing the Arts of *Deſign* and *Imitation*, and of thoſe in which Strength or Dexterity are more requiſite than Acuteneſs or Reach of Judgment. In the ſucceeding *rational* or *intellectual* Period, his *Underſtanding*, which formerly crept in a lower, mounts into an higher Sphere, canvaſſes the Natures, judges of the Relations of Things, forms Schemes, deduces Conſequences from what is paſt, and from preſent as well as paſt, collects future Events. By this Succeſſion of States, and of correſpondent Culture, he grows up at length into a *moral*, a *ſocial*, and a *political* Creature. This is the laſt Period, at which we perceive him to arrive in this his mortal Career. Each *Period* is introductory to the next ſucceeding one; each *Life* is a Field of Exerciſe and Improvement for the next higher one, the Life of the *Fœtus* for that of the *Infant*, the Life of the *Infant* for that of the *Child*, and all the lower for the higheſt and beſt.*—But is this the laſt Period of Nature's Progreſſion? Is this the utmoſt Extent of her Plot, where ſhe winds up the Drama, and diſmiſſes the Actor into eternal Oblivion? Or does he appear to be inveſted with ſupernumerary Powers, which have not full Exerciſe and Scope, even in the laſt Scene, and reach not that Maturity or Perfection of which they are capable; and therefore point to ſome higher Scene where he is to ſuſtain another and more important Character than he has yet ſuſtained? If any ſuch there are, may we not conclude by Analogy, or in the ſame Way of Anticipation as before, that he is deſtined for that After-part, and is to be produced upon a more auguſt and ſolemn Stage, where his ſublimer Powers ſhall have proportioned Action, and its Nature attain its Completion?

Powers in Man which point to an after-Life.

Intellectual.

If we attend to that *Curioſity*, or prodigious *Thirſt of Knowledge*, which is natural to the Mind in every Period of its Progreſs, and conſider withal the endleſs Round of Buſineſs and Care, and the various Hardſhips to which the Bulk of Mankind are chained down, it is evident, that in this preſent State, it is impoſſible to expect the Gratification of an Appetite at once ſo inſatiable and ſo noble. Our *Senſes*, the ordinary Organs by which Knowledge is let into the Mind, are always imperfect, and often fallacious; the Advantages of aſſiſting, or correcting them, are poſſeſſed by few; the Difficulties of finding out Truth amidſt the various and contradictory Opinions, Intereſts, and

* *See* Butler's *Analogy*, Part I.

and Paſſions of Mankind, are many; and the Wants of the Creature, and of thoſe with whom he is connected, numerous and urgent; ſo that it may be ſaid of moſt Men, that their *intellectual* Organs are as much ſhut up and ſecluded from proper Nouriſhment and Exerciſe in that little Circle to which they are confined, as the *bodily* Organs are in the Womb. Nay, thoſe who to an aſpiring Genius have added all the Aſſiſtances of Art, Leiſure, and the moſt liberal Education, what narrow Proſpects can even they take of this unbounded Scene of Things from that little Eminence on which they ſtand? And how eagerly do they ſtill graſp at new Diſcoveries, without any Satisfaction or Limit to their Ambition?

Moral Powers.

But ſhould it be ſaid, that Man is made for *Action*, and not for *Speculation*, or fruitleſs Searches after Knowledge, we aſk, for what kind of Action? Is it only for *bodily* Exerciſes, or for *moral*, *political*, and *religious* ones? Of all theſe he is capable, yet by the unavoidable Circumſtances of his Lot, he is tied down to the *former*, and has hardly any Leiſure to think of the *latter*, or, if he has, wants the proper Inſtruments of exerting them. The *Love of Virtue*, *of one's Friends* and *Country*, the *generous Sympathy with Mankind*, and *heroic Zeal of doing Good*, which are all ſo *natural* to great and good Minds, and ſome Traces of which are found in the loweſt, are ſeldom united with proportioned Means or Opportunities of exerciſing them; ſo that the *moral* Spring, the noble Energies and Impulſes of the Mind, can hardly find proper Scope, even in the moſt fortunate Condition; but are much depreſſed in ſome, and almoſt entirely reſtrained in the Generality, by the numerous Clogs of an indigent, ſickly, or embarraſſed Life. Were ſuch mighty Powers, ſuch God-like Affections planted in the human Breaſt to be folded up in the narrow Womb of our preſent Exiſtence, never to be produced into a more *perfect* Life, nor to expatiate in the ample Career of Immortality?

Unſatisfied Deſires of Exiſtence and Happineſs, &c.

Let it be conſidered, at the ſame time, that no Poſſeſſion, no Enjoyment within the Round of Mortal Things is commenſurate to the Deſires, or adequate to the Capacities of the Mind. The moſt exalted Condition has its Abatements, the happieſt Conjuncture of Fortune leaves many Wiſhes behind, and after the higheſt Gratifications, the Mind is carried forward in purſuit of new ones without End. Add to all, the fond *Deſires* of *Immortality*, the ſecret *Dread* of *Non-exiſtence*, and the high unremitting

Pulſe of the Soul beating for *Perfection*, joined to the Improbability or the Impoſſibility of attaining it *here*; and then judge whether this elaborate Structure, this magnificent Apparatus of inward Powers and Organs, does not plainly point out an *Here-after*, *and intimate Eternity to Man?* Does Nature give the finiſhing Touches to the leſſer and ignobler Inſtances of her Skill, and raiſe every other Creature to the Maturity and Perfection of his Being, and ſhall ſhe leave her principal Workmanſhip unfiniſhed? Does ſhe carry the *Vegetative* and *Animal* Life in *Man* to their full Vigour, and higheſt Deſtination, and ſhall ſhe ſuffer his *Intellectual*, his *Moral*, his *Divine* Life to fade away, and be for ever extinguiſhed? Would ſuch Abortions in the *Moral* World be congruous to that *Perfection of Wiſdom and Goodneſs*, which upholds and adorns the *Natural?*

Therefore Man immortal.

We muſt therefore conclude, from this Detail, that the *Preſent State*, even at its beſt, is only the WOMB of Man's Being, in which the nobleſt Principles of his Nature are in a manner fettered, or ſecluded from a correſpondent Sphere of Action, and therefore deſtined for a future and unbounded State, where they ſhall emancipate themſelves, and exert the Fulneſs of their Strength. The moſt accompliſhed Mortal, in this low and dark Apartment of Nature, is only the *Rudiments* of what he ſhall be, when he takes his Ethereal Flight, and puts on Immortality. Without a Reference to that State, *Man* were a mere Abortion, a rude unfiniſhed Embryo, a Monſter in Nature. But this being once ſuppoſed, he ſtill maintains his Rank, of the Maſter-piece of the Creation; his latent Powers are all ſuitable to the *Harmony* and *Progreſſion* of Nature, his noble Aſpirations, and the Pains of his Diſſolution, are his Efforts towards a *ſecond* Birth, the Pangs of his Delivery into Light, Liberty, and Perfection; and *Death*, his Diſcharge from Goal, his Separation from his Fellow-Priſoners, and Introduction into the Aſſembly of thoſe heroic Spirits who are gone before him, and of their great Eternal Parent. The Fetters of his Mortal Coil being looſened, and his Priſon-Walls broke down, he will be bare and open on every Side to the Admiſſion of *Truth* and *Virtue*, and their fair Attendant, *Happineſs*; every *Vital* and *Intellectual* Spring will evolve itſelf, with a divine Elaſticity, in the free Air of Heaven. He will not then peep at the Univerſe and its glorious Author through a dark Grate, or a groſs Medium, nor receive the Reflections of his Glory through the ſtrait Openings of ſenſible Organs, but will be *all Eye*, *all Ear*, *all Ethereal*

and Divine Feeling.†—Let one part however of the Analogy be attended to, that, as in the Womb we receive our Original Conſtitution, Form, and the eſſential *Stamina* of our Being, which we carry along with us into the Light, and which greatly affect the ſucceeding Periods of our Life; ſo our Temper and Condition in the *future* Life will depend on the Conduct we have obſerved, and the Character we have formed in the *preſent* Life. We are *here* in *Miniature* what we ſhall be at *full Length here-after*. The firſt *rude Sketch*, or *Out-lines* of *Reaſon* and *Virtue*, muſt be drawn at preſent, to be afterwards enlarged to the *Stature* and *Beauty* of Angels.

Immortality a Guard and Incentive to Virtue.

This, if duly attended to, muſt prove not only a *Guard*, but an admirable *Incentive* to Virtue. For he who faithfully and ardently follows the Lights of Knowledge, and pants after higher Improvements in Virtue, will be wonderfully animated and inflamed in that Purſuit, by a full Conviction that the Scene does not cloſe with Life—that his Struggles ariſing from the Weakneſs of Nature, and the Strength of Habit, will be turned into Triumphs—— that his Career in the Track of Wiſdom and Goodneſs will be both ſwifter and ſmoother—and thoſe generous Ardors with which he glows towards *Heaven*, *i. e.* the *Perfection* and *Immortality of Virtue*, will find their adequate Object and Exerciſe in a Sphere proportionably enlarged, incorruptible, immortal. On the other hand, what an inexpreſſible Damp muſt it be to the good Man, to dread the total Extinction of that *Light* and *Virtue*, without which *Life*, nay *Immortality* itſelf, were not worth a ſingle Wiſh?

Proof from the Inequality of preſent Diſtributions.

Many Writers draw their Proofs of the Immortality of the Soul, and of a future State of Rewards and Puniſhments, from the unequal Diſtribution of theſe here. It cannot be diſſembled that wicked Men often eſcape the *outward* Puniſhment due to their Crimes, and do not feel the *inward* in that meaſure their Demerit ſeems to require, partly from the Calouſneſs induced upon their Nature by the Habits of Vice, and partly from the Diſſipation of their Minds abroad by Pleaſure or Buſineſs—and ſometimes good Men do not reap all the natural and genuine Fruits of their Virtue, through the many unforeſeen or unavoidable Calamities in which they are involved. This, no doubt, upon the Suppoſition of an all-wiſe and good Providence, were an Argument, and a ſtrong one too, for a future State, in which thoſe Inequalities ſhall be corrected.

† *Vid. Relig. of Nat.* §. 9.

But unleſs we ſuppoſe a *preſtabliſhed good Order* in the preſent Scene of Things, we weaken the Proof of the *Divine* Adminiſtration, and the Preſumption of any better Order in any future Period of it.

Belief of Immortality, &c. a great Support amidſt Trials.

From *Section the ſecond* of this *Book* it appears, that *Virtue* has preſent Rewards, and *Vice* preſent Puniſhments annexed to it, ſuch Rewards and Puniſhments as make *Virtue*, in moſt Caſes that happen, far more eligible than *Vice*; but, in the infinite Variety of Human Contingencies, it may ſometimes fall out, that the inflexible Practice of Virtue ſhall deprive a Man of conſiderable Advantages to himſelf, his Family, or Friends, which he might gain by a well-timed piece of Roguery, ſuppoſe by betraying his Truſt, voting againſt his Conſcience, ſelling his Country, or any other Crime, where the Security againſt Diſcovery ſhall heighten the Temptation. Or, it may happen, that a ſtrict Adherence to his Honour, to his Religion, to the Cauſe of Liberty and Virtue, ſhall expoſe him, or his Family, to the Loſs of every thing, nay to Poverty, Slavery, Death itſelf, or to Torments far more intolerable. Now, what ſhall ſecure a Man's Virtue in Circumſtances of ſuch Trial? What ſhall enforce the Obligations of Conſcience againſt the Allurements of ſo many Intereſts, the Dread of ſo many and ſo terrible Evils, and the almoſt unſurmountable Averſion of human Nature to exceſſive Pain? The Conflict is the greater, when the Circumſtances of the Crime are ſuch as eaſily admit a Variety of Alleviations from *Neceſſity*, *Natural Affection*, *Love to one's Family*, or *Friends*, perhaps in Indigence: Theſe will give it even the Air of Virtue. Add to all, that the Crime may be thought to have few bad Conſequences,—may be eaſily concealed,—or imagined poſſible to be retrieved in a good meaſure, by future good Conduct. It is obvious to which Side moſt Men will lean in ſuch a Caſe, and how much need there is of a Balance in the oppoſite Scale, from the Conſideration of a *God*, of a *Providence*, and of an *immortal State* of *Retribution*, to keep the Mind firm and uncorrupt in thoſe or like Inſtances of ſingular Trial, or Diſtreſs.

In the general Courſe of Life.

But without ſuppoſing ſuch peculiar Inſtances, a Senſe of a Governing Mind, and a Perſuaſion that Virtue is not only befriended by him here, but will be crowned by him hereafter with Rewards ſuitable to its Nature, vaſt in themſelves, and immortal in their Duration, muſt be not only a mighty Support and Incentive to the Practice of Virtue, but a ſtrong Barrier againſt Vice. The

Thoughts

Thoughts of an Almighty Judge and of an impartial future Reckoning, are often alarming, inexpreſſibly ſo, even to the ſtouteſt Offenders. On the other hand, how ſupporting muſt it be to the good Man, to think that he acts under the Eye of his Friend, as well as Judge! How improving, to conſider the *preſent State* as connected with a *future* one, and every Relation in which he ſtands as a *School* of *Diſcipline* for his *Affections*, every *Trial* as the *Exerciſe* of ſome *Virtue*, and the virtuous Deeds which reſult from both, as introductory to higher Scenes of *Action* and *Enjoyment!* Finally, how tranſporting is it to view *Death* as his *Diſcharge* from the *Warfare* of *Mortality*, and a triumphant *Entry* into a State of Freedom, Security and Perfection, in which Knowledge and Wiſdom ſhall break upon him from every Quarter; where each Faculty ſhall have its proper Object, and his Virtue, which was often damped or defeated here, ſhall be enthroned in undiſturbed and eternal Empire!

Advantages of the Chriſtian *Scheme, and its Connection with Natural Religion or Morality.*

On reviewing this ſhort *Syſtem* of *Morals*, and the *Motives* which ſupport and enforce it, and comparing both with the CHRISTIAN *Scheme*, what *Light* and *Vigour* do they borrow from thence! How clearly and fully does CHRISTIANITY lay open the *Connections* of our Nature, both *material* and *immaterial*, and *future* as well as *preſent!* What an ample and beautiful Detail does it preſent of the *Duties* we owe to *God*, to *Society* and *Ourſelves*, promulgated in the moſt ſimple, intelligible, and popular manner; diveſted of every Partiality of Sect or Nation; and adapted to the general State of Mankind! With what bright and alluring *Examples* does it illuſtrate and recommend the Practice of thoſe Duties; and with what mighty *Sanctions* does it enforce that Practice! How ſtrongly does it deſcribe the *Corruptions* of our Nature; the *Deviations* of our Life, from the *Rule* of *Duty*; and the *Cauſes* of both! How marvellous and benevolent a Plan of *Redemption* does it unfold, by which thoſe *Corruptions* may be remedied, and our *Nature* reſtored from its *Deviations*, to tranſcendent Heights of *Virtue* and *Piety!* Finally, what a fair and comprehenſive Proſpect does it give us of the *Adminiſtration* of *God*, of which it repreſents the *preſent State* only as a *ſmall Period*; and a *Period* of *Warfare* and *Trial!* How ſolemn and unbounded are the Scenes which it opens beyond it; the *Reſurrection* of the *Dead*; the *General Judgment*; the *Equal Diſtribution* of *Rewards* and *Puniſhments* to the *Good* and the *Bad*; and the full *Completion* of *Divine Wiſdom* and *Goodneſs*

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in the *final Eſtabliſhment* of *Order*, *Perfection* and *Happineſs*! —How glorious then is that SCHEME of RELIGION, and how worthy of *Affection* as well as of *Admiration*, which, by making ſuch *Diſcoveries*, and affording ſuch *Aſſiſtances*, has diſcloſed the unfading Fruits and Triumphs of VIRTUE, and ſecured its Intereſts beyond the Power of TIME and CHANCE!

CONCLUSION.

Recapitulation. WE have now conſidered the CONSTITUTION and CONNECTIONS of MAN, and deduced the ſeveral DUTIES reſulting from *both*. We have inveſtigated ſome of the METHODS by which his *Conſtitution* may be *preſerved* in a *ſound* and *healthful* State, or *reſtored* to it. We have enquired into the FINAL CAUSES of his *Conſtitution*, and found its admirable *Harmony* with his *Situation*. And, laſtly, we have enumerated the principal MOTIVES which inforce the *Practice* of the *Duties*, incumbent on a Creature *ſo conſtituted*, and *ſo ſituated*. From this Deduction it appears, that "MAN is a *Creature*, endued with "a Variety of *Senſes*, *Powers*, and *Paſſions*, ſubject to a Va- "riety of *Wants* and *Dangers*, environed with many NATU- "RAL, and capable of forming many CIVIL *Connections*; "bound to many *Duties* in conſequence of ſuch a *Nature*, "ſuch a *Situation*, and ſuch *Connections*, and ſuſceptible of ma- "ny *Enjoyments* in the Diſcharge of them."—It farther appears, that "the Sum of thoſe *Duties* may be reduced to ſuch "a Conduct of his *Senſes*, *Powers* and *Paſſions*, as is duly *pro- "portioned* to his *Wants*, to his *Dangers*, and to his *Connections*; "—that this *Conduct* is moſt approved in the mean time, and "yields the moſt refined and laſting *Pleaſures* afterwards;— "that particularly, the Exerciſe of the *Public Affections* is at- "tended with *Enjoyments*, the greateſt in DIGNITY and *Du- "ration*;—and in the *largeſt Sum* of ſuch *Pleaſures* and *Enjoy- "ments* his higheſt HAPPINESS conſiſts. THEREFORE, to "keep thoſe refined Sources of Enjoyment always open, and, "in caſes of Competition, to ſacrifice the *Lower* kinds, *i. e.* "thoſe of *Senſe* and *Appetite*, to the *Higher*, *i. e.* to thoſe of "*Reaſon*, of *Virtue* and *Piety*, is not real *Self-denial*, but the "trueſt *Wiſdom*, and the juſteſt *Eſtimate* of *Happineſs*.—And "to ſhut up the nobler Springs, or to ſacrifice the *higher* to the "*lower* kinds, is not *Self-indulgence*, but the *Height* of *Folly*, "and a wrong *Calculation* of *Happineſs*."

Reſult.

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Therefore HE who in his YOUTH, improves his *Intellectual* Powers in the Search of Truth and uſeful Knowledge; and refines and ſtrengthens his *Moral* and *Active* Powers, by the Love of Virtue, for the Service of his Friends, his Country, and Mankind; who is animated by true Glory, exalted by ſacred Friendſhip for *Social*, and ſoftened by virtuous Love for *Domeſtic* Life; who lays his Heart open to every other mild and generous Affection, and who, to all theſe adds a ſober maſculine *Piety*, equally remote from *Superſtition* and *Enthuſiaſm*, that MAN enjoys the moſt agreeable *Youth*; and lays in the richeſt Fund for the honourable *Action*, and *happy* Enjoyment of the *ſucceeding Periods* of Life. *The happieſt Youth.*

He who, in MANHOOD, keeps the *Defenſive* and *Private Paſſions* under the wiſeſt Reſtraint; who forms the moſt ſelect and virtuous Friendſhips; who ſeeks after *Fame*, *Wealth*, and *Power*, in the Road of *Truth* and *Virtue*, and, if he cannot find them in that Road, generouſly deſpiſes them; who, in his *private* Character and Connections, gives fulleſt Scope to the tender and manly Paſſions, and in his *public* Character and Connections ſerves his Country and Mankind, in the moſt upright and diſintereſted manner; who, in fine, enjoys the *Goods* of Life with the greateſt *Moderation*, bears its *Ills* with the greateſt *Fortitude*; and in thoſe various Circumſtances of *Duty* and *Trial* maintains and expreſſes an habitual *Reverence* and *Love of God*; THAT MAN is the *worthieſt* Character in *this Stage* of Life; paſſes through it with the higheſt Satisfaction and Dignity; and paves the Way to the moſt eaſy and honourable *Old-age*. *The happieſt Manhood.*

Finally, HE who, in the DECLINE OF LIFE preſerves himſelf moſt exempt from the Chagrins incident to that Period; cheriſhes the moſt *equal* and *kind Affections*; uſes his *Experience*, *Wiſdom*, and *Authority* in the moſt *fatherly* and *venerable* manner; acts under a *Senſe* of the *Inſpection*, and with a View to the *Approbation* of his *Maker*; is daily aſpiring after Immortality, and ripening apace for it; and having ſuſtained his Part with Integrity and Conſiſtency to the laſt, quits the Stage with a modeſt and graceful Triumph; THIS is the *beſt*, this is the *happieſt* OLD-MAN. *The happieſt Old-age.*

Therefore that *whole Life* of *Youth*, *Manhood*, and *Old-age* which is ſpent after this manner, is the BEST and HAPPIEST LIFE. *The happieſt Life.*

" *He*, who has the ſtrongeſt *Original Propenſion* " to ſuch Sentiments and Diſpoſitions, has the " beſt NATURAL Temper." " *He* who *culti-* *The good Man.*

vates,

" *vates* them with the greateſt Care is the moſt
The Virtuous. " VIRTUOUS Character." " HE, who *knows*
" to *indulge* them in the moſt *diſcreet* and *con-*
The Wiſe, the Fortunate Man. " *ſiſtent* manner, is the WISEST." " And HE,
" who, with the *largeſt Capacities*, has the *beſt*
" *Opportunities* of indulging them, is the moſt
" FORTUNATE.

A Life according to Nature. " To form our Life upon this Plan is to FOL-
" LOW NATURE," that is to ſay, " to act in a
" *Conformity* to our *Original Conſtitution*, and in
" a *Subordination* to the *Eternal Order* of *Things*.
" And, by acting in this manner, (ſo benevolently are we
" formed by our common Parent !) we effectually promote
Duty, Wiſdom and Happineſs are one. " and ſecure our higheſt Intereſt." THUS, at laſt
it appears, (and who would not rejoice in ſo *Di-*
vine a Conſtitution?) that " DUTY, WISDOM,
" and HAPPINESS *concide*, and are *one*."

The Sum and Perfection of Virtue. To conclude: " VIRTUE is the higheſt *Ex-*
" *erciſe* and *Improvement* of REASON; the *Inte-*
" *grity*, the *Harmony*, and *juſt Balance* of AFFEC-
" TION; the *Health*, *Strength* and *Beauty* of the MIND."
" The PERFECTION *of Virtue* is to give REASON *free* Scope;
" to obey the Authority of CONSCIENCE with *Alacrity*; to
" exerciſe the *defenſive Paſſions* with FORTITUDE; the *Pri-*
" *vate* with TEMPERANCE; the *Public* with JUSTICE; and
" all of them with PRUDENCE; that is, in a due *Proportion*
" to each other, and an entire *Subſerviency* to a *calm diffuſive*
" BENEVOLENCE;——to *adore* and *love* GOD with a *diſintereſt-*
" *ed* and *unrivalled* AFFECTION; and to *acquieſce* in his *Pro-*
" *vidence* with a *joyful Reſignation*." Every *Approach* to this
" *Standard* is an *Approach* to *Perfection* and HAPPINESS. And
" every *Deviation* from it, a *Deviation* to VICE and MISERY."

A noble and joyful Corollar. From this whole REVIEW of HUMAN NA-
TURE, the moſt *divine* and *joyful* of all *Truths*
breaks upon us with full Evidence and Luſtre;
" That MAN is liberally provided with *Senſes* and
" *Capacities* for *enjoying Happineſs*; furniſhed with *Means* for
" *attaining* it; *taught* by his NATURE where it *lies*; *prompted*
" by his PASSIONS *within*, and his CONDITION *without*,
" powerfully to ſeek it; and, by the *wiſe* and *benevolent* OR-
" DER of *Heaven*, often *conducted* to the WELFARE of the
" PARTICULAR, and always made *ſubſervient* to the GOOD
" of the UNIVERSAL SYSTEM."

PART

PART X.

ON

Trade and Commerce.

ON TRADE AND COMMERCE.

CHAP. I.

The Nature and Origin of Trade; how it is the Baſis of Civil Society, the great Support of Arts and Sciences, the true Foundation of Liberty, the Parent of Induſtry and Elegance, and eſſentially neceſſary to National Happineſs.

IT was an old Notion of the *Stoicks*, revived and moſt elegantly explained by the celebrated *Fenelon*, in his *Telemachus*, that the human Species are, in the Eye of their Author and Creator, a ſingle Republic, in which all Nations, great and ſmall, are by him regarded as ſo many Tribes or Families; ſome of which are in a better, ſome in a worſe Condition, from the right or wrong Uſe of the Means which he has put into their Hands, as intending the Happineſs of all his Creatures. It is by theſe Means, that his all-wiſe Providence, which directs every thing for the beſt, draws Good out of Evil, and makes abſolute Want the Spring and Cauſe of over-flowing Abundance.

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The Nature of Man, as it gives him a ſtrong Feeling of Indigence, ſo it affords him alſo the Lights neceſſary to avoid it; and hence aroſe the firſt Notions of Traffic. For when it was perceived, that one Family could not live ſo well without the Aſſiſtance of another, they even in the earlieſt Ages began, by mutually imparting the Produce of their Labours, to provide for their common Happineſs; and this gave a beginning to *Trade*, in the eaſy and natural way of *Barter*. Thoſe who addicted themſelves to Huſbandry, were careful to raiſe, not only what was ſufficient for their own Subſiſtence, but alſo what might enable them by Exchange to purchaſe a Part of the Herds and Flocks of their Neighbours, who applied themſelves to a paſtoral Life: As theſe again, found their Account in procuring Corn and Fruits, for what would otherwiſe have proved an over-ſtock of Sheep and Cattle.

By degrees, as Improvements were made, and Reaſon exerted itſelf in adding daily to the Conveniencies of Life, Trade alſo began to wear quite another Face. Inſtead of going from Houſe to Houſe, to ſettle theſe neceſſary Exchanges, common Places of Meeting were appointed, and thus *Markets* were introduced. At firſt bare *Commodities* were exchanged, a Sheep was given for a Sack of Corn; or a certain Number of Fowl, for a Quantity of Fruit; and this made *Weights* and *Meaſures* neceſſary. After the Inventions of Spinning and Weaving came to be practiſed, not only *Wares*, but *Manufactures* were brought to Market; and thus a Variety was introduced in Dealing, and that became an *Art*, which was before but the mere Dictate of Neceſſity.

One of the firſt, and indeed one of the moſt material Diſcoveries, that was made in this new Art, and which appears to have been made very early, was the Neceſſity of a *common Meaſure*, or *Standard*, for regulating the Value of all kinds of Commodities and Manufactures. It was found inconvenient to carry ſome things to Market, and beſides, Markets were attended with great Incertainties: Thoſe who had Goods to exchange, were not always able to find ſuch as had the Things they wanted; and perhaps when they were found, they had no Occaſion for the Things offered. To free themſelves from theſe Difficulties, Men were obliged to fix upon ſomewhat, that ſhould be eſteemed in juſt Proportions, an Equivalent for Commodities, or Manufactures, of any kind; and this was the Riſe of *Money*. There was no Neceſſity of its having any intrinſic Value, for it was ſufficient that common Conſent gave it that kind of Courſe

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from hand to hand, which is ſo well expreſſed by our common Term *Currency*; and if it was laſting, portable, and of an unalterable Nature, it was enough. In ſome Parts of the World, they formerly uſed Leather Money; on the Coaſts of *Africa*, thoſe little white ſpeckled and ſhining Shells, which the Natives call *Cowries*, and our Children here *Black-a-moors Teeth*, ſtill paſs for Money, and have a certain Value aſſigned. In Proceſs of Time, as this Art came to be farther improved, *Silver* grew into Value with moſt Nations, and became what it is at preſent, the *common Meaſure* of all Things.

By this Method, all the Inconveniencies before-mentioned, and many more that for the ſake of Brevity were omitted, totally diſappeared. Inſtead of purchaſing Cattle with Corn, or Wine with Manufactures, both were purchaſed with Silver. When Commodities were ſcarce more Silver was given for them; when they came in plenty to Market, they fetched leſs; and hence the Terms of *Dearneſs* and *Cheapneſs*. The reaſon why Silver became almoſt univerſally the *Standard*, was from its Neatneſs, Solidity, and lying in a narrow Compaſs. At firſt the Value of it was adjuſted by Weight, and afterwards, to increaſe and improve its Currency, that Weight came to be ſettled by a Stamp or Mark, and hence came what we call *Coin*. It is eaſy from this Account to diſcern the Reaſon, why in many Countries the Denominations of Money are taken from Weights. Amongſt the *Hebrews*, for Example, the *Shekel* was both a Weight and a Coin; that is to ſay, when the Piece called the *Shekel* came to have a Stamp, that Stamp imported, that the Silver upon which it was impreſſed weighed a *Shekel*. So in *England*, the *Pound* and the *Mark* were both Weights and Sums, becauſe originally a Pound of Money was a Pound in Silver, and a Mark was two Thirds of a Pound both in Money and in Weight: Things indeed are ſince changed, for a Pound of Silver makes now three Pounds in Money, but the Denomination of *Pound* and *Mark*, which ſtill remain, occaſion no Confuſion, becauſe the Pound and Mark in Money retain ſtill their old Proportion, that is to ſay, the latter is two Thirds of the former. In *North Britain* the ſame Proportion holds, though their Money has ſuffered a much greater Degradation, their Pound being no more than Twenty Pence of our Money, and their Mark two Thirds of that Pound.

It is alſo to be obſerved that Silver paſſed by Weight, till Civil Societies were reduced into perfect Order, that is to

ſay, till Governments were ſettled; for without the Sanction of Civil Authority, that kind of Stamp, which converted Silver into Coin, could not have been had. Hence Coining came to be one of the Prerogatives of ſupreme Power, or the Privilege of thoſe to whom it was delegated by the ſupreme Power, the Stamp being an Aſſurance, that the Piece on which it was impreſſed was of a certain Value. We ſee likewiſe from this Account of the Matter, how *Coining*, or rather *falſe Coining*, came to be conſidered as a Species of *Treaſon*; for the aſſuming a Power to ſtamp, and thereby fix in common Eſtimation the Value of any Piece of Metal, was a plain Uſurpation of that Authority to which it legally belonged, and therefore under all Governments might very reaſonably paſs for Treaſon.

But it is very natural to enquire, ſince Gold, Copper, and Braſs have been alſo coined, and the ſame Penalties in ſome Countries inflicted for the counterfeiting any of theſe, as for the counterfeiting of Silver, why they ought not to be eſteemed *common Meaſures* as well as Silver, contrary to the Definition before given. In anſwer to this we muſt allow, that in common Speech, and in ordinary Practice, they are accounted Money, and yet ſtrictly ſpeaking, there is, indeed there can be but one Standard, and that is Silver. The Stamp upon Gold only ſettles the Value in Silver for which that Piece of Gold is to paſs; for Gold, in itſelf, is a Commodity, as well as other Things, and its Price varies in different Ages, and in ſeveral Countries, and at different Times in the ſame Country. It may be alſo enquired how Silver can be conſidered as a perpetual Standard of the Value of Things, when in this and in other Nations, the very Coin itſelf is ſubject to Variation. The Solution of this Difficulty conſiſts in diſtinguiſhing between the Impreſſion, and the intrinſic Value, or rather the Rate given by the Impreſſion, and the Weight of the Piece ſo coined. The Stamp in this Caſe anſwers a double Purpoſe; in the firſt place it certifies, that the Piece of Silver is of ſuch a Weight and Fineneſs, of which it belongs to all the World to take notice; and it likewiſe certifies the Value of the Coin as ſettled by that Authority which the Stamp diſcovers; and this relates only to the Subjects of that Government under which the Stamp gives this Money Currency. So far therefore as the Stamp diſtinguiſhes the Weight and Fineneſs of the Silver, it is of univerſal Credit; and in this Senſe only *Silver* is the *common Standard*, which when cloſely conſidered, this very Objection proves. For ſuppoſe the intrinſic Value of an Ounce of Sil-

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ver to be five Shillings; ſuppoſe the Crown Piece to weigh exactly an Ounce; ſuppoſe the Government of any Country thinks fit to direct that the Crown Piece ſhall paſs for ten Shillings; this will only alter the Rate of Silver Coin in that Country, and not the Value of Silver as a Standard; for all foreign Nations will conſider the Stamp no farther than as it fixes the Weight, and will have the ſame Quantity of Silver for their Goods, as they had before the Alteration of the Value of the Coin in that Country; that is to ſay, if they dealt with the Inhabitants for a Pound of Silk at the Rate of twenty Shillings before the Alteration, they will then expect forty Shillings for it, or in other Words, they will ſtill expect four Ounces of Silver for that Pound of Silk, as they did before the Riſe of their Coin.

This Point may be farther illuſtrated, by conſidering the Practice in *China*, where they have not even to this Time any Coin, but tranſact all their Buſineſs by weighed Silver. In order to make this eaſy, every Trader carries in his Pocket a Roll of Silver, which is very fine, and of this they cut off with a Pair of Sheers, which they likewiſe carry about them, as much as will pay for the Goods they buy by Weight. For the Conveniency of making larger Payments, they alſo carry a Roll of Gold, which they cut in like manner, and frequent Practice has given them ſuch a Dexterity in doing this, that they very rarely miſs cutting at once the Quantity they are to pay. But tho' they have not Coin, yet the Fineneſs of the Silver is regulated, and from thence is ſtiled the *Chan's* Silver, becauſe it is of the Standard required by the *Chan*, or Emperor of *China*, in the Payments that are made to his Exchequer; and this is alſo manifeſt to every body by the Cutting; for if they were to debaſe it, their Sheers would not divide it; or if they did, the Silver would not cut even, but would appear in Cracks and Gaps, and thereby prove its Baſeneſs. They have indeed a ſort of Copper Coin, of a very ſmall Value, with a Hole thro' the Middle, for the greater Conveniency of ſtringing them in certain Numbers; but theſe riſe and fall in their Value almoſt every Week, according as there is a greater or a leſs Demand for them; but the Value of the *Chan's* Silver is permanent, and is the fixed and ſettled Standard of their Trade.

We have now ſhewn as clearly and ſuccinctly as poſſible, what are the three great Heads of mercantile Intercourſe, *viz. Commodities*, *Manufactures*, and *Money*; as alſo how the latter ſerves ſo commodiouſly for ſettling the Value or

Price of the other two, and ſerves ſuch as are poſſeſſed of it in Countries where Traffic has a free Courſe, inſtead of both. For he who has Money by him may have all Things, and may purchaſe at any Market whatever Goods and Manufactures he pleaſes; becauſe the Perſon who receives it may apply it to the like Uſe, and procure whatever ſuits him beſt; ſo that the Eſtabliſhment of this Standard or common Meaſure, appears to be a very great Help to Trade. Yet this is not the only Uſe of Money; it ſerves alſo to compenſate Labour, to purchaſe Houſes and Lands, in ſhort, to acquire every thing; and hence ariſes the Notion of *Riches*, which conſiſt in the Poſſeſſion of Money, or of what may be eaſily and certainly converted into it.

But becauſe in common Acceptation, Gold and Silver paſs univerſally, and are eſteemed in all Countries for the only ſtable and certain kind of Wealth; ſo in Countries where theſe are not depoſited by Nature, the Inhabitants muſt remain perpetually indigent and poor, if they had not ſome Method of acquiring theſe valuable Metals. This Method is no other than ſuch an Intercourſe between Nations, as we have deſcribed under the Name of *Trade* amongſt People of the ſame Country; but when carried into ſo large Extent, it is uſually, or at leaſt properly ſtiled *Commerce*. In order to this, not only Commodities, Manufactures, and Money, but *Shipping* alſo is neceſſary; and by the Help of theſe, thoſe Nations that have applied themſelves to this Art, have in all Ages rendered themſelves rich, powerful, and happy, and all this, notwithſtanding any Difficulties they might labour under in point of Climate, Soil, or Situation. For tho' with the Help of Advantages in all or ſeveral of theſe Articles, they might thrive ſooner or better; yet Induſtry and Application has very frequently enabled them to get over what might ſeem unſurmountable Obſtacles in their Way to the Points that they propoſed, as the Reader will ſee with Satisfaction, in the following ſhort Hiſtory of Commerce.

Yet before we examine this by the Light of Experience, it will be highly proper to conſider, how far Reaſon will carry us in the Elucidation of this Subject. We muſt eaſily diſcern, that nothing could be ſo great a Spur to Induſtry as the Invention of *Trade*. The Variety of Wants to which Man in a ſolitary State ſtands expoſed, is fitter to oppreſs and weigh down his Spirit, than to excite him to Induſtry; but when he perceives that a reaſonable Proportion of Care, and Diligence, and Labour, will enable him to acquire not the bare Neceſſaries only, but the Conveniencies alſo of Life;

this gives him Courage, Vigour and Activity, which could be deduced from nothing elſe. At the ſame time it quickens and enlivens his Imagination, puts him upon new Inventions, upon carrying Arts already known to the utmoſt Perfection, or upon ſtriking out new; and conſidered in this Light, is the *great Principle* of *Science*, Theoretical and Practical. The former is valuable only as it leads to the latter, and the latter would be a Thing of little or no Importance if it were not for TRADE, which gives that Encouragement upon which *all Arts* ſubſiſt, even thoſe that ſeem the moſt removed from it.

As the Neceſſities of Mankind created an Intercourſe of Buying and Selling, ſo this ſoon introduced firſt *Civility*, and then *Society*. In his own Family, in the primitive Times, every Man was a *Lord* and a *Prince*; his Will was a Law to thoſe about him, and he would probably have ſpoke only the Language of Power, if the *Buſineſs* of *Bartering* with his Neighbours had not led him amongſt his *Equals*, where conſequently that Language could not be underſtood. A juſt Senſe of this brought the Forms of Dealing, and the true Spirit of Commerce into Uſe; and when this had ſo far improved Men's Circumſtances, that they were not only poſſeſſed of valuable Things, but had a Concern for the Preſervation of them, it was natural to think of providing for this by *political Conſtitutions*. Deſpotic Governments might be the Effects of Chance, of Accident, or of Misfortune; but eqnal, limited, and legal Governments, could only ariſe from Men's being poſſeſſed of PROPERTY, and from their Deſire of keeping and enjoying that *Property* they poſſeſſed.

This Principle of living under *Laws* for the Sake of the Advantages derived from them, and of diſdaining any other *Subjection* than that proceeding from a well-conditioned and rational Choice, is what is truly, ſtrictly, and properly ſtiled LIBERTY, and is not only highly conſiſtent with, but in ſome meaſure eſſentially neceſſary to *Trade*. Men may be forced to labour whether they will or not, and Men may be chained as Slaves to their Oars in a Galley againſt their Wills; but that Sort of Labour, and that Sort of Hazard which Trade requires to make it flouriſh, is out of the Reach of Force; and therefore, as we ſhall ſee in the next Chapter, the Countries moſt famous for *Commerce* have been uſually under a *Republican Government*, or, which comes to the ſame Thing, *Princes* have been forced to relax the natural Severity of their Adminiſtration, in order to encourage their Subjects to apply

themſelves to *Commerce*, to bring *Trade* into their *Dominions*, and to *keep* it when brought.

Great as theſe Benefits are, yet there is ſtill another which in the Judgment of *Politicians* will perhaps weigh down all the reſt, and ſeem in itſelf ſufficient to recommend *Commerce* beyond all other Acquiſitions. This mighty Benefit is Power, and that kind of Power which of all others is the moſt deſireable, the Power, or if you will, the *Ability* of *Independency*. It is an ancient and a juſt Maxim, that whoever prevails at *Sea*, will in the End prevail on *Shore*; nor is there any Inſtance, or at leaſt not above *one*, of a Maritime Power ruined by a Land War, till her Power was firſt broken by Sea, or in other Words, till ſhe had loſt the *Power* of the *Sea*. It appears from hence, that if Liberty, Property, an equal Government, a flouriſhing State of Learning, Perfection in Arts and Sciences, public Magnificence, and private Abundance, together with the Capacity of preſerving and defending theſe againſt all *Invaders*, be certain and inconteſtable Bleſſings, they are ſuch as COMMERCE can, perhaps ſuch as nothing but COMMERCE can beſtow. And therefore what we have advanced in the Title of this Chapter, is not an airy or imaginary Compliment to the *Prerogative* of our *own Iſland*. as at firſt ſight it might very well be taken to be, but a ſerious and a ſober Truth, which when fully explained, the Mind receives and embraces, as ſhe does moſt other Truths, with Readineſs and Pleaſure, and on which the more we reflect, the more we conſider and meditate, the more we ſhall be ſatisfied, that the Worth of the Thing is not over-rated, but that it has been fairly and plainly repreſented.

It may be objected, and indeed it has been very often objected, that together with greater Benefits and Bleſſings, there are alſo many Inconveniencies and deſtructive Qualities that attend a flouriſhing and extenſive Commerce; ſuch as Luxury, Contempt of Virtue, and in Time a total Depravity of Manners. That the beſt Things may be corrupted, and that when corrupted they become the worſt, is a Thing that cannot be denied; and yet this is no Argument, that the beſt Things are not deſireable. Idleneſs and Luxury are indeed the Children of Abundance, as Abundance is the Daughter of Trade; but ſurely it is hard to make Induſtry and Trade, the honeſt and innocent Parents of this beautiful Dame, accountable for any Slips ſhe may make. It is not TRADE therefore, that ever becomes either dangerous or injurious to any State, but Errors in Government corrupt and poiſon

the

the Advantages that ariſe from thence; and therefore upon ſuch as are guilty of theſe Errors, the Blame ought to fall, and not upon COMMERCE, which never can be the Cauſe. As the cleareſt Proof of this, let us conſider, that where *Idleneſs* and *Luxury* prevail *Commerce* muſt quickly ſink; and therefore it is idle as well as unjuſt to ſuppoſe, that ſhe has any *Connection* with *thoſe* in whoſe Company it is impoſſible for her to remain.

CHAP. II.

A ſuccinct Hiſtory of Commerce, from the earlieſt Times to the preſent; containing a clear, tho' conciſe Account, of what chiefly deſerves Notice, in reference to the Nations moſt remarkably diſtinguiſhed by it, from the Arabians, Egyptians, Phœnicians, *&c. down to the Eſtabliſhment of the principal Maritime Powers in* Europe.

THE ſhorteſt, the eaſieſt, and the moſt agreeable Method of becoming acquainted with the true Nature, and real Importance of Commerce, is to take a ſuccinct View of its Hiſtory, by which it will appear, that in every Nation ſucceſſively where it has been thoroughly cultivated, and came to a high Degree of Perfection, it has been conſtantly attended with thoſe Conſequences which have been aſcribed to it in the former Chapter. Adding therefore to the Arguments delivered therein, from Reaſon and the Nature of Things, the Proofs that ariſe from Experience, and which will appear in the Progreſs of this Diſcourſe, there will be no room for Scepticiſm left; but we muſt be as fully and clearly perſuaded of the Truths laid down in reference to this Point, as it is poſſible for us to be in relation to a Thing of this Nature; becauſe we have every Motive to Conviction that can be either expected or deſired.

It is a Point as yet undecided by the Learned, to what Nation the Invention and firſt Uſe of COMMERCE belonged; ſome attribute it to one People, ſome to another, for Reaſons that are too long to be diſcuſſed here. But after mature Reflection, I muſt confeſs it ſeems moſt probable to me, that the Inhabitants of *Arabia* were thoſe that firſt made long Voyages. It muſt be allowed, that no Country was ſo happily ſeated for this Purpoſe, as that which they inhabited, being

being a Peninſula, waſhed on three Sides by three famous Seas, the *Arabian*, *Indian*, and *Perſian*. It is alſo certain, that it was very early inhabited; and the firſt Notice we have of any conſiderable Trade refers it to the *Iſhmaelites*, who were ſettled in the hither Part of *Arabia*. To them *Joſeph* was ſold by his Brethren, when they were going down with their Camels to *Egypt* with *Spicery*, *Balm*, and *Myrrh*. It may ſeem ſtrange to infer from hence, that Commerce was already practiſed by this Nation, ſince Mention is here made of Camels or a Caravan, which certainly implies an inland Trade; and it muſt be likewiſe allowed, that *Balm* and *Myrrh* were the Commodities of their Country. But whence had they the *Spicery?* Or how came *Arabia* to be ſo famous in ancient Times for *Spices?* Or whence proceeded that Miſtake of many great Authors of Antiquity, that Spices actually grew there? Moſt certainly, becauſe theſe People dealt in them; and that they dealt in them the firſt of any Nation that we know of, appears from this very Inſtance. *Strabo*, and many other good Authors aſſure us, that in ſucceeding Times they were very great Traders; they tell us particularly what Ports they had, what prodigious Magazines they kept of the richeſt kinds of Goods; what wonderful Wealth they obtained; in what prodigious Magnificence they lived, and into what Exceſſes they fell in reſpect to their Expences for Carving, Building, and Statues. All this ſhews that they were very great Traders; and it alſo ſhews, that they traded to the *Eaſt-Indies*, for from thence only they could have their *Spices*, their rich *Gums*, their *ſweet-ſcented Woods*, and their *Ivory*, all which it is expreſly ſaid, that they had in the greateſt Abundance. This therefore proves, that they had an extenſive and flouriſhing Commerce; and that they had it earlier than any other Nation, ſeems to me evident, from their dealing at that Time in Spices. Beſides, there is much leſs Difficulty in ſuppoſing, that they firſt diſcover'd the Route to the *Indies*, than if we aſcribe that Diſcovery to any other Nation; for in the firſt place, they lay neareſt, and in the next, they lay moſt conveniently; to which we may add thirdly, that as the Situation of their Country naturally inclined them to Navigation, ſo by the Help of the *Monſoons*, they might make regular Voyages to and from the *Indies* with great Facility; nor is it at all unlikely, that this Diſcovery might be at firſt owing to Chance, and to ſome of their Veſſels being blown by a ſtrong Gale to the oppoſite Coaſt, from whence they might take the Courage to return, by obſerving the Regularity of the Winds at certain Seaſons. All theſe Reaſons taken

taken together, ſeem to favour this Opinion, that Commerce flouriſhed firſt among them; and as to its Conſequences in making them rich and happy, there is no Diſpute about them.

We find in the Records of Antiquity, no Nation celebrated more early for carrying all Arts to Perfection than the Inhabitants of *Egypt*; and it is certain alſo, that no Art was there cultivated more early, with more Aſſiduity, or with greater Succeſs than Trade. It appears from the foregoing Inſtance, that the richeſt Commodities were carried thither by Land; and it is no leſs certain, that the moſt valuable Manufactures were invented and brought to Perfection there, many Ages before they were thought of in other Countries. For as the learned Mr. *Warburton* very juſtly obſerves, at the Time that *Joſeph* came into *Egypt*, the People were not only poſſeſſed of all the Conveniencies of Life, but were remarkable alſo for their Magnificence, their Politeneſs, and even for their Luxury; which argues, that Traffic had been of long ſtanding amongſt them. To ſay the Truth, the great Advantages derived from their Country's lying along the *Red-Sea*, and the many Benefits that accrued to them from the NILE, which they very emphatically called *the River*, or the *River* of *Egypt*, and of which they knew how to make all the Uſes that can be imagined, gave them an Opportunity of carrying their inland Trade, not only to a greater Height than in any Country at that Time, but even higher than it has been carried any where, *China* only excepted; and ſome People have thought it no trivial Argument to prove the Deſcent of the *Chineſe* from the *Egyptians* that they have exactly the ſame Sort of Genius, and with wonderful Induſtry and Care have drawn ſo many Cuts and Canals, that their Country is almoſt in every Part of it navigable. It was by ſuch Methods, by a wiſe and well-regulated Government, and by promoting a Spirit of Induſtry amongſt the People, that the ancient *Egyptians* became ſo numerous, ſo rich, ſo powerful; and that their Country for large Cities, magnificent Structures, and perpetual Abundance, became the Glory and Wonder of the old World.

The *Phœnicians*, tho' they poſſeſſed only a narrow Slip of the Coaſt of *Aſia*, and were ſurrounded by Nations ſo powerful and ſo warlike, that they were never able to extend themſelves on that Side, became famous, by erecting the firſt *naval Power* that makes any Figure in Hiſtory, and for the raiſing of which they took the moſt prudent and effectual Meaſures. In order to this, they not only availed themſelves

of

of all the Creeks, Harbours and Ports, which Nature had beſtowed very liberally on their narrow Territory, but improved them in ſuch a manner, that they were no leſs remarkable for their Strength, than conſiderable for their Conveniency; and ſo attentive they were to whatever might contribute to the Increaſe of their Power, that they were not more admired for the *vaſt Advantages* they derived from their *Commerce*, than they were *formidable* by their *Fleets* and *Armies*. They were likewiſe celebrated by Antiquity as the Inventors of *Arithmetic* and *Aſtronomy*, and in the laſt mentioned Science, they muſt have been very conſiderable Proficients, ſince they had the Courage to undertake long Voyages at a Time when no other Nation (the *Arabians* and *Egyptians* excepted) durſt venture farther than their own Coaſts. By theſe Arts TYRE and SIDON became the moſt famous Marts in the Univerſe, and were reſorted to by all their Neighbours, and even by People at a conſiderable Diſtance, as the great Storehouſes of the World. We learn from the Scriptures, how advantageous their Friendſhip and Alliance became to the two great Kings of *Iſrael*, *David* and *Solomon*; and we ſee by the Application of the latter for Architects and Artiſts to *Huram* King of *Tyre*, to what a prodigious Height they had carried Manufactures of every kind.

It is very certain, that SOLOMON made uſe of their Aſſiſtance in equipping his Fleets at *Elath* and *Ezion Geber*; and it is very probable that they put him upon acquiring thoſe Ports, and gave him the firſt Hints of the amazing Advantages that might be derived from the Poſſeſſion of them, and from the Commerce he might from thence be able to carry on. Theſe Ports were moſt commodiouſly ſituated on the *Arabian* Gulph, and from thence his Veſſels, manned chiefly by *Phœnicians*, ſailed to *Ophir* and *Tharſis*, wherever thoſe Places were. Some Writers will needs have them to be *Mexico* and *Peru*, which is certainly a wild and extravagant Suppoſition; others believe that we are to look for *Ophir* on the Coaſt of *Africa*, and *Tharſis* in *Spain*; but the moſt probable Opinion is, that they were both ſeated in the *Eaſt-Indies*. By this adventurous Navigation, he brought into his Country Curioſities not only unſeen, but unheard of before, and Riches in ſuch Abundance, that, as the Scripture finely expreſſes it, *He made Silver in* Jeruſalem *as Stones, and Cedar-Trees as Sycamores that grew in the Plains*. The Metaphor is very bold and emphatical; but when we conſider that it is recorded in this Hiſtory, that the Return of one Voyage only to *Ophir*, produced *four hundred and fifty* Talents of Gold,

Gold, which make fifty-one thouſand three hundred twenty eight Pounds of our *Troy* Weight, we cannot doubt of the immenſe Profit that accrued from this Commerce. It is alſo obſervable, that the Queen of *Sheba*, or *Saba*, which lies in that Part of *Arabia* before-mentioned, ſurprized at the Reports that were ſpread of the Magnificence of this Prince, made a Journey to his Court on purpoſe to ſatisfy herſelf, whether Fame had not exaggerated the Fact; and from the Preſents ſhe made him of one hundred and twenty Talents of *Gold*, of *Spices* in great Abundance, and *precious Stones*, we may diſcern the true Reaſon of her Curioſity, which proceeded from an Opinion that no Country could be *ſo rich* as her *own*; and there is another Circumſtance very remarkable, and which ſeems ſtrongly to fortify what we have advanced in the Beginning of this Chapter, it is added, *neither was there any ſuch* Spices *as the Queen of* SHEBA *gave to King* SOLOMON; which ſeems to intimate, that the *Arabians* had penetrated farther into the *Indies*, than even the Fleets of this famous Prince, and brought from thence other Spices (perhaps Nutmegs and Cloves) than had ever been ſeen before. It was by his Wiſdom, and by his ſteady Application to the Arts of Peace, all of which mutually ſupport each other, as they are all driven on by the Wheel of Commerce, which ſupplies every Want, and converts every Superfluity into Merchandize; that this Monarch raiſed his Subjects to a Condition much ſuperior to that of any of their Neighbours, and rendered the Land of *Iſrael* while he governed it, the Glory and Wonder of the *Eaſt*. He made great Acquiſitions without making Wars; and his Succeſſor, by making Wars, loſt thoſe Acquiſitions. It was his Policy to keep all his People employed, and by employing them, he provided equally for the Extenſion of their Happineſs, and his own Power; but the following Kings purſued other Meaſures, and other Conſequences attended them. The Trade of *Judea* ſunk almoſt as ſuddenly as it roſe, and in Proceſs of Time they loſt thoſe Ports on the *Red-Sea*, upon which their *Indian* Commerce depended.

The whole Trade of the Univerſe became then, as it were, the Patrimony of the *Phœnicians* and the *Egyptians*. The latter monopolized that of the *Indies*, and together with her Corn and Manufactures, brought ſuch a prodigious Balance of Wealth continually into the Country, as enabled the ancient Monarchs of *Egypt* to compaſs all thoſe memorable Works, that in ſpite of Time and barbarous Conquerors, remain the Monuments of their Wiſdom and Power, and are like to remain ſo as long as the World ſubſiſts. The *Phœnicians* drew

from

from *Egypt* a great Part of thoſe rich Commodities and valuable Manufactures, which they exported into all the Countries between their own and the *Mediterranean* Sea; they drew likewiſe a vaſt Reſort to their own Cities, even from Countries at a great Diſtance; and we need only look into the Prophets *Iſaiah* and *Ezekiel* in order to be convinced, that theſe Governments founded on Trade, were infinitely more glorious, and more ſtable, than thoſe that were erected by Force. All this we find likewiſe confirmed by profane Hiſtories; and by comparing theſe it is evident, that the Induſtry of the Inhabitants of this ſmall Country triumphed over all Obſtacles, procured the greateſt Plenty in a barren Soil, and immenſe Riches, where, without Induſtry, there muſt have been the greateſt Indigence. It is true, that old *Tyre* was deſtroyed by *Nebuchadnezzar*, but not till ſhe had flouriſhed for Ages; and even then ſhe fell with Dignity, and after a Reſiſtance that ruined the Army of the Great Conqueror of *Aſia*. Out of the Aſhes of this proud City, the great Spirit of its Inhabitants produced a Phœnix, little, if at all, inferior in Beauty to its Parent. New *Tyre* was ſituated on an Iſland, and though her Bounds were very narrow, yet ſhe became quickly the Miſtreſs of the Sea, and held that ſupreme Dominion till ſubdued by *Alexander the Great*, whom no Power could reſiſt. The Struggle ſhe made, however, though unſucceſsful, was great, and very much to the Honour of her Inhabitants: It muſt be owned, that the *Greek* Hero found it more difficult to maſter this ſingle Place, than to overcome the whole Power of *Perſia*.

The Views of the *Macedonian* Prince were beyond Compariſon more extenſive than his Conqueſts; and whoever conſiders *Alexander*'s Plan of Power, and enters into it thoroughly, will think him more a Politician than he was a Conqueror. He framed in his own Mind an Idea of univerſal Monarchy, which it was indeed impoſſible to accompliſh; but the very Notion of it, does him far greater Honour than all his Victories. He thought of placing his Capital in *Arabia*; and of diſpoſing Things in ſuch a manner, as to have commanded the moſt remote Parts of the *Indies*, at the ſame time that he maintained a Connection with the moſt diſtant Countries in *Europe*. He was for making uſe of Force to acquire; but he very well knew that Commerce only could preſerve an Empire, that was to have no other Limits than thoſe which Nature had aſſigned the World. He deſired to be Maſter of all; but at the ſame time he was willing to be a wiſe and gracious Maſter, and to place his Happineſs in that of his Peopel,

People, or rather, in making all the Nations of the Earth but one People. A vaſt, an extravagant, an impracticable Scheme it was, of which he lived not long enough to draw the Outlines; but the Sample he left in his new City of *Alexandria* ſufficiently ſhews, how juſt, and how correct his Notions were, and how true a Judgment he had formed of what might be effected by thoſe Methods upon which he depended. That City, which he might be ſaid to deſign with his own Hand, and which was built, as it were, under his Eye, became in ſucceeding Times all that he expected, the Glory of *Egypt*, and the Center of Commerce for ſeveral Ages.

While TYRE was in the Height of her Glory, and had no Rival in the Empire of the Sea, ſhe founded her noble Colony of CARTHAGE on the Coaſt of *Africa*. The Situation of this City was every way admirable; whether conſidered in the light of a Capital, of a ſtrong Fortreſs, or of a commodious Port. It was equally diſtant from all the Extremities of the *Mediterranean* Sea, had a very fine Country behind it, and was not in the Neighbourhood of any Power capable of reſtraining its Commerce, or its Growth. It is almoſt inexpreſſible how ſoon its Inhabitants became, not only numerous and wealthy, but potent and formidable. By degrees they extended themſelves on all Sides, conquered the beſt Part of *Spain*, and erected there a *new Carthage*; the Iſlands of *Sicily* and *Sardinia*, or at leaſt the beſt Part of them, ſubmitted likewiſe to their Yoke. But their Conqueſts, however, were inconſiderable in Extent, when compared with their Navigation. On one Side they ſtretched as far Weſtward as *Britain*; and the *Scilly* Iſlands, which are now ſo inconſiderable, were to them an *Indies*, the Route to which, they uſed the utmoſt Induſtry to conceal. On the other hand, they diſcovered a great Part of the Coaſt of *Africa*, the *Canary* Iſlands; and ſome there are, who believe they firſt found the way to *America*. While they confined themſelves to Trade, and the Arts which belonged thereto, their Power was continually increaſing; but when Induſtry gave way to Luxury, and a Spirit of Ambition baniſhed their old Maxims of Frugality and Labour, their Acquiſitions remained at a Stand. The *Romans* began to grow jealous of their Naval Power, which it coſt them *two* obſtinate Wars of forty Years Continuance to humble. When ſhe was at length deſtroyed, her very Ruins were majeſtic; for at the beginning of the *third* fatal Punic War, this City contained ſeven hundred thouſand Inhabitants alone, and had three hundred Cities in *Africa* under her Dominion. Such was the

Empire

Empire of *Carthage*, raiſed intirely by COMMERCE; and to which, if ſhe had been content to have applied herſelf with the ſame Steadineſs in her higheſt Proſperity as in her early Beginnings, there is no doubt ſhe had preſerved her *Freedom* much longer than ſhe did; for as Thrift and Diligence, and good Faith, are the Pillars of a Commercial State, ſo when theſe are once ſhaken, it is not only natural that ſhe ſhould decline, but unavoidable alſo. Reaſon teaches us this, and we are taught it too by the *Example* of CARTHAGE!

The *Ptolemies*, who were the Succeſſors of *Alexander* in *Egypt*, entered deeply into that *Hero*'s Scheme, and reaped the Benefit of his wiſe Eſtabliſhment. *Ptolemy Philadelphus*, by encouraging Trade, made his Subjects immenſely rich, and himſelf inexpreſſibly powerful. We are told by an ancient Author, than he had one hundred and twenty Gallies of War of an enormous Size, and upwards of four thouſand other Veſſels, ſmall and great. This would appear incredible, if other Wonders were not related of him, which ſeem to explain and confirm theſe. He raiſed a new City on the Coaſt of the *Red-Sea*; he was at an immenſe Expence in opening Harbours, conſtructing Quays, in raiſing Inns at proper Diſtances on the Road, and in cutting a Canal from Sea to Sea. A Prince who comprehended the *Importance* of *Commerce* to a degree that induced him to dare ſuch Expences as theſe, might have what Treaſures, what Armies, what Fleets he pleaſed. In his Time, ALEXANDRIA appeared in Pomp and Splendor. She owed her Birth to *Alexander*, but it was *Ptolemy*, who caught a *double Portion* of his Maſter's Spirit, which raiſed her to that *Magnificence* that Ages could not deface. We may gueſs at what ſhe was in her Glory, by what we are told was the Produce of her *Cuſtoms*, which fell little ſhort of *Two Millions* of our Money annually; and yet we cannot ſuppoſe that *Ptolemy*, who underſtood Trade ſo well, would cramp it by high Duties, or extravagant Impoſitions. When the Revenue of the Prince from a ſingle Port was ſo great, what muſt have been the Riches of his Subjects?

But what ſhews us ALEXANDRIA in the higheſt Point of Light, is the Credit ſhe maintained after *Egypt* ſunk from an Empire into a Province. The *Romans* themſelves were ſtruck with the Majeſty of her Appearance, and though till then they had little regarded *Traffic*, yet they were not long before they comprehended the Advantages of ſuch a Port, and ſuch a Mart as *Alexandria*; they confirmed her Privileges, they protected her Inhabitants, they took every Meaſure poſſible to preſerve her Commerce, and this, with ſo good

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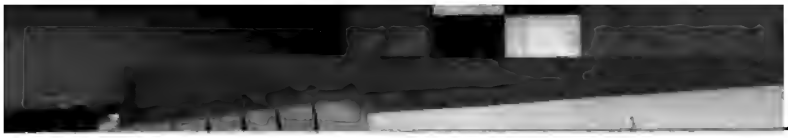
an Effect, that ſhe actually preſerved it longer than *Rome* herſelf could preſerve her Power. She followed, indeed, the Fortune of the Empire, and became at laſt dependent upon *Conſtantinople*, when its Founder removed thither the Capital of the Empire; and his Succeſſor found means to tranſfer alſo a Part of the Trade of *Alexandria* to the ſame Place. Yet this City continued ſtill to hold up her Head, and though ſhe ſunk under the barbarous Power of the *Arabs*, yet they grew poliſh'd by degrees; by degrees ſhe recovered ſomewhat of her ancient Pre-eminence; and though ſhe never roſe to any thing like her former Luſtre, yet ſhe remained the Center of what little Trade there was in the World; which is more than can be ſaid of almoſt any Place that has fallen under the *Mohamedan* Power.

When the *Roman* Empire was over-run by *Barbarians*, and Arts and Sciences ſunk with that Power which had cultivated and protected them, Commerce alſo viſibly declined, or, to ſpeak with greater Propriety, was overwhelmed and loſt; for in times of Confuſion, and public Deſolation, when the *Giant* WAR ſtalks abroad, overturns great Cities, tramples down the nobleſt Improvements, and lays whole Countries waſte, it is impoſſible that *Trade* ſhould continue, or rather, it is highly probable, that on the very Approach of theſe Dangers, ſhe muſt have already fled. It is a common Saying, that Riches are the *Nerves* of War, rather, I think, the *Food* of it; and therefore where *War* devours theſe, *Commerce* cannot ſubſiſt, which is a perpetual Reaſon why all trading Nations ſhould avoid offenſive Wars, for by thoſe that are abſolutely defenſive, they can never be hurt. But to keep to the Point; when that Irruption of various Nations had driven the *Roman* Policy out of the greateſt Part of *Europe*, ſome ſtraggling People, either forced by Neceſſity, or led by Inclination, took ſhelter in a few ſtraggling Iſlands that lay near the Coaſt of *Italy*, and which would never have been thought worth inhabiting in a time of Peace. This was in the ſixth Century, and at their firſt fixing there, they had certainly nothing more in View than living in a tolerable State of *Freedom*, and acquiring a Subſiſtence as well as they could. Theſe Iſlands being divided from each other by narrow Channels, and thoſe Channels ſo incumbered by Shallows, that it was impoſſible for Strangers to navigate them, theſe Refugees found themſelves tolerably ſafe, and uniting amongſt themſelves for the ſake of improving their Condition, and augmenting their Security, they became in the

the eighth Century, a well-ſettled Government, and aſſumed the Form of a *Republic*.

Simple and mean as this Relation may appear, yet it is a plain and true Account of the Riſe, Progreſs and Eſtabliſhment of the famous and potent Republic of VENICE. Her Beginnings were indeed weak and ſlow, but when the Foundation was once well laid, her Growth was quick, and the Increaſe of her Power amazing. She extended her Commerce on all Sides, and taking Advantage of the barbarous Maxims of the *Mohamedan* Monarchies, ſhe drew to herſelf the Profits of the *Indian* Trade, and might, in ſome Senſe, be ſaid to make *Egypt* a Province, and the *Saracens* her Subjects. By this means her Traffic ſwelled beyond Conception, ſhe became the common *Mart* of all Nations; her Naval Power arrived at a prodigious Height, and making uſe of every favourable Conjuncture, ſhe ſtretched her Conqueſt, not only over the adjacent *Terra Firma* of *Italy*, but through the Iſlands of the *Archipelago*, ſo as to be at once *Miſtreſs* of the *Sea*, of many fair and fruitful Countries, and of Part of the great City of *Conſtantinople* itſelf. But Ambition, and the Deſire of lording it over her Neighbours, Paſſions equally fatal in public and in private Life, to States and Empires, as well as to great Men, and to great Families, brought upon her thoſe Evils, which firſt produced a Decay of Trade, and then a Declenſion of Power. General Hiſtories indeed aſcribe this to the *League* of *Cambray*, when all the great Powers in *Europe* combined againſt this Republic; and in truth, from that Period, the Sinking of her Power is truly dated; but the *Venetian* Writers very juſtly obſerve, that though this Effect followed the League, yet there was another more latent, but at the ſame time a more effectual Cauſe, which was, the falling off of their Commerce. Her Subjects were become leſs frugal, and leſs wealthy, and at the ſame time more ambitious and more profuſe. It was impoſſible in ſuch a Situation, that the State ſhould maintain itſelf when ſo warmly attacked; a Man in a Conſumption cannot ſtruggle with the ſame Force as in Health; and though By-ſtanders may attribute the Fall he receives to the Strength of his Adverſary, he cannot help knowing that it proceeds ſolely from the failing of his own Strength. This was the Caſe of the *Venetians*, and they have ever ſince been more indebted to their Wiſdom than their Power, to the prudent concealing of their own Weakneſs, and taking Advantage of the Errors of their Enemies, than to any other Cauſe, for their keeping up that Port which they ſtill bear,



bear, and which had been loſt long ago by any other Nation but themſelves.

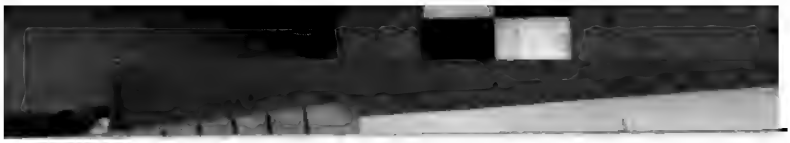
At the ſame time that *Venice* roſe, as it were, out of the *Sea*, another Republic was erected on the *Coaſt* of *Italy*. There could not well be a worſe Situation than the narrow, marſhy, unprofitable and unwholſome *Iſlands* in the *Adriatic*, except the rocky, barren, and inhoſpitable *Shores* of *Liguria*, and *yet* as Commerce raiſed VENICE *the Rich* on the one, ſo ſhe erected GENOA *the Proud* on the other. In ſpite of ambitious and warlike Neighbours, in ſpite of a confined and unproducing Country, and which were ſtill greater Impediments, in ſpite of perpetual Factions, and ſucceſſive Revolutions, the Trade of *Genoa* made her Rich and Great. Her Merchants traded to all Countries, and throve, by carrying the Commodities of the one to the other. Her Fleets became formidable; and beſides the adjacent Iſland of *Corſica*, ſhe made larger and important Conqueſts. She fixed a Colony at *Caffa*, and was for ſome time in Poſſeſſion of the Coaſts on both Sides of the *Black Sea*. That Emulation which is natural to neighbouring Nations, and that Jealouſy which riſes from the Purſuit of the ſame Miſtreſs, Commerce, begat continual Wars between theſe rival Republics, which after many obſtinate and bloody Battles, was at laſt terminated in Favour of *Venice*, by that famous Victory of *Chiozza*, gained by her Doge *Andrew Contarini*, from which time *Genoa* never pretended to be *Miſtreſs* of the *Sea*. Theſe Quarrels were fatal to both; but what proved more immediately deſtructive to the *Genoeſe*, was their Avarice, which induced them to abandon the fair Profits of *Trade*, for the Sake of that vile Method of acquiring Wealth by *Uſury*.

This leads us to mention another Subject that has a cloſe Connection with Commerce, and that is the Buſineſs of EXCHANGES. This, though in many Caſes uſeful to Commerce, concerns alſo many other things, ſuch as Tranſactions of State and of War, the Removal of Families, or the Deſcent of Succeſſions upon Strangers, all of which create the Neceſſity of removing Money from one Country to another, which ſometimes cannot be done at all, and in moſt Caſes muſt be attended with Inconveniency, if practiſed in the plain way of Tranſportation. The *Lombards*, one of the many Nations that eſtabliſhed themſelves in *Italy*, after the Ruin of the *Roman* Empire, and who have beſtowed their Name on one of the fineſt Countries in it, deviſed a Method for removing, in a great meaſure, this Inconvenience; for they obſerved that Money was very often wanting reciprocally in ſeveral Countries, and therefore they imagined,

that if a Way could be found to eſtabliſh a Correſpondence capable of ſupplying theſe mutual Wants, it might prove very advantageous to the middle Perſons; and this produced that kind of Practice now known by the Name of *Exchange*, which as it was invented by, ſo it continued long in the Hands of the *Lombards*. For this Purpoſe, they ſettled themſelves in moſt of the great Cities in *Europe*; and having a ſtrict Correſpondence one with another, they managed this new Branch of Buſineſs of drawing and remitting Money with vaſt Advantage to themſelves; and to do this the more effectually, they entered into Partnerſhip, kept large Houſes, and had vaſt *Capitals*, which were ſtiled *Banks*, and as it was their Cuſtom (as indeed it was of all ſorts of Merchants) to live together, ſo the Street in which they reſided in this City acquired from thence its Name, and though things are long ſince changed, yet it is ſtill inhabited by *Engliſh* Bankers, and retains its old Name of *Lombard-ſtreet*.

We may diſcern the wonderful Effects of Induſtry in this Invention; for the *Lombards* inhabiting an inland Country, drew by this means to themſelves a very conſiderable Profit out of Foreign Trade, and made *Milan*, and other great Cities in which they reſided, Populous and Opulent by their becoming the Center of their Exchanges. But when the *Genoeſe* fell into it, they began to carry it farther; for they not only *drew* and *remitted* Money, but *lent* it alſo, and by this means as their Profits increaſed, they began to ſlight their Foreign Trade; or rather their *Capitals* however large, becoming unequal to the double Demands of *Commerce* and *Banking*, the former gave way to the latter, as the moſt ſecure, if not the moſt profitable, and by this Alteration *Individuals* became immenſely rich and great, while the *State* grew weak and poor; and thus the *Republic* of *Genoa* dwindled into a low Condition, and by degrees was obliged to pawn almoſt all its Revenues to its own BANK of ST. GEORGE, which amidſt a long Series of Foreign Wars and Domeſtic Seditions, remained unhurt and inviolate till the laſt taking of that City by the *Auſtrians*, when the *Bank* of *St. George* met the ſame Fate with the *Common-wealth*, and whether either of them will recover their former Luſtre, is a *Problem* that muſt be left to *Time* to reſolve.

But we muſt now look to another Part of the World. In the middle Age of the *German* Empire, that is, about the middle of the thirteenth Century, there was formed a Confederacy of many Maritime Cities, or at leaſt of Cities not far from the Sea. This Confederacy ſolely regarded Commerce,



Commerce, which they endeavoured to promote and extend, by intereſting therein a great number of Perſons, and endeavouring to profit by their different Views and different Lights. Though the Cities of *Germany* held the principal Rank in the TEUTONIC HANSE, they did not however forbear aſſociating many other Cities, as well in *France* as in *England* and in the *Low-Countries*, the whole however without hurting the Authority, without Prejudice to the Rights of the Sovereign on whom they depended. This Confederacy had its Laws, its Ordinances, and its Judgments, which were obſerved with the ſame Reſpect as the Maritime Code of the *Rhodians*, who paſſing for the ableſt Seamen in all Antiquity, their Conſtitutions were obſerved by the *Greeks* and *Romans*. The *Teutonic Hanſe* grew in a ſhort time to ſo high a Rank in Power and Authority by the immenſe Riches it acquired, that Princes themſelves rendered it a ſincere Homage from Principles of Eſteem and Admiration. Thoſe of the *North* principally had frequent Occaſion for their Credit, and borrowed of them conſiderable Sums. The Grand Maſters of the *Teutonic* Order, who were at that time Sovereigns of *Livonia*, declared themſelves Conſervators of the Rights and Privileges of the *Hanſe*: All ſucceeded, not only to, but beyond their Wiſhes; and *Germany* charmed with their Progreſs, looked on them with the ſame Eyes as a curious Gardener does on certain rare Plants, though not of his own Raiſing and Culture. The Kings of *France* and *England* granted alſo various Privileges to the *Teutonic* Confederacy; they exempted their Veſſels in caſe of Shipwreck from all Demands whatſoever from the Admiralty, or from private Perſons; they forbid any Diſturbance to their Navigation at all times; and even when *France* was at War with the Emperor, or the Princes of the *North*. In fine, during the Courſe of thoſe unhappy Wars, which were ſtiled *Croiſades*, the *Hanſe* was ſignally conſulted, and gave always puiſſant Succours in Money and in Ships to the *Chriſtians* oppreſſed by *Infidels*. It is aſtoniſhing, that Cities at ſo great a Diſtance from each other, ſubject to different Kings, ſometimes in open War, but always jealous of their Rights; it is, I ſay, very aſtoniſhing, that theſe Cities ſhould be able to confederate and live together in ſo ſtrict a Union. But when this Union had rendered them very rich and powerful, it cannot ſeem at all ſtrange, that on the one hand, they grew arrogant and overbearing, took upon them, not only to treat with Sovereigns on the foot of Equality, but even to make War with them, and more than once with Succeſs. It will on the other hand appear ſtill leſs ſtrange,

that ſuch Behaviour as this awakened various Princes to a more particular View of the Dangers that ſuch a League might produce, and the Advantages that would naturally flow to their reſpective States, by recovering their Trade thus made over, at leaſt in ſome part, to others, entirely to themſelves; and theſe in few Words, were the Cauſes of the gradual Declenſion of the *Hanſiatic* Alliance, which, however, is not totally diſſolved at this day. The Cities of *Lubeck*, *Hamburgh*, and *Bremen*, maintaining ſufficient Marks of that Splendour and Dignity with which this Confederacy was once adorned.

We muſt now turn our Eyes to *Portugal* and *Spain*, where in the Space of about Fifty Years, there happened a train of Events, which gradually led on to ſuch Diſcoveries as chang'd the whole Face of Affairs in the Commercial World, and gave to the Knowledge of later Ages, what for ſome thouſand Years had been kept ſecret from all Mankind, I mean a perfect and diſtinct Notion of that *terraqueous Globe*, which they inhabit. The Kingdom of *Portugal* was ſmall, but well cultivated, very populous, and bleſſed with a Variety of good Ports, all which, however, had ſtood them in little ſtead, if they had not had a Succeſſion of wiſe Princes, who inſtead of involving themſelves in War with their Neighbours to gratify their Ambition, endeavoured to extend the Happineſs and Wealth of their Subjects, and by ſo doing their own Power, in the ſofter and more ſucceſsful Method of protecting Arts and Sciences, encouraging Induſtry, and favouring Trade; this, with the convenient Situation of their Country, in the beginning of the fifteenth Century, prompted ſome lively Spirits to attempt Diſcoveries, and theſe countenanced by an heroic young Prince, puſhed on their Endeavours with ſuch Succeſs, that ſtep by ſtep the Coaſt of *Africa* was ſurveyed as far as the *Cape of Good Hope*, to which they gave that Name. The Point they had in view, was a new Route to the *Eaſt-Indies*, which *Vaſquez de Gama* happily diſcovered; and in a ſhort Space of Time *Portugal*, from one of the leaſt conſiderable, grew to be one of the richeſt Powers in *Europe*, gained prodigious Dominions in *Aſia* and *Africa*, and raiſed a Naval Power ſuperior to any thing that had been ſeen for many Ages before.

But while this was doing, and doing in the ſlow Way of Experience, where one ſmall Diſcovery made way for another; *Chriſtopher Columbus*, a *Genoeſe* of great Capacity, tho' of almoſt unknown Original, who had been bred to the Sea from his Youth, and who had carefully ſtudied what others made

made a Trade, formed in his Mind the amazing Project of counteracting Experience, and ſailing to the *Indies* by a *Weſt* Courſe. He offered this Project to the *Portugueſe*, by whom it was conſidered and rejected as a Chimera. He propoſed it afterwards to other States, but with no better Fortune; and at laſt owed the Diſcovery of the New World to the high Spirit of a Heroine, the famous *Iſabella* Queen of *Caſtile*, who almoſt at her own Expence, and with very little Countenance from her Huſband, who yet was ſtiled *Ferdinand* the *Wiſe*, furniſhed the adventurous *Columbus* with that poor Squadron, with which at once, in ſpite of all the Difficulties that the Envy of his Officers, and the Obſtinacy of his mutinous Crew threw in his way, perfected his Deſign, and laid open a *new Indies*, though in reality, he aimed at the Diſcovery of the *old*. Neither was this noble Effort of his matchleſs Underſtanding defeated; for after his Deceaſe, *Ferdinand Magellan* a *Portugueſe*, propoſed to the Emperor *Charles* V. the Diſcovery of a Paſſage to the Spice Iſlands by the *South Seas*, which was what *Columbus* aimed at; and though *Magellan* lived not to return, yet in one Voyage the Diſcovery was perfected. It is inconceivable almoſt, how many and how great Benefits accrued to *Europe* from theſe Diſcoveries; of which however it is certain, that the *Portugueſe* made a very indifferent, and the *Spaniards* much worſe Uſe; the former making Slaves of, and the latter rooting out the Natives; which as it was a moſt ingrateful Return to Divine Providence for ſo high a Bleſſing, ſo it might have been eaſily foreſeen, it would prove, as Experience has ſhewn it did prove, highly prejudicial to their own Intereſts, by depopulating very fine Countries, which have been thereby turned into Deſarts; and though on their firſt Diſcovery infinite Treaſures were returned from them, which were coined in the Mints of *Spain*, yet by an obſtinate Purſuit of this falſe Policy, the *Spaniſh* Iſlands in the *Weſt-Indies* are now brought ſo low, as to be ſcarce worth keeping. The Conſequences that naturally followed on the Diſcovery of a Paſſage by the *Cape of Good Hope*, and of a fourth Part of the Globe in the Weſtern Hemiſphere, were, as it has been already hinted, the Cauſe of an intire Change in the State of *Europe*, and produced, not only in *Portugal* and *Spain*, but in moſt other Nations, a Deſire of viſiting theſe remote Parts, of eſtabliſhing Colonies, of ſetting Manufactures on foot, of exporting and importing Commodities, and of raiſing, ſettling and protecting new Manufactures. By this means, as the Reader cannot but perceive, not only

particular Nations brought about ſignal Advantages to themſelves, but *Europe* in general received a laſting and invaluable Benefit: for its Potentates made themſelves formidable, and even terrible in thoſe diſtant Parts of the Earth, and where their Fame had hardly reached before. It is however true, that this has not been carried as high as it might have been; for though there was room enough for every Nation to have had its Share, and though it might be demonſtrated that the Good of *the whole* would have contributed ſufficiently to the Profit of *every State*, the Subjects of which had engaged in this Traffic; yet inſtead of proſecuting ſo natural and ſo equitable a Meaſure, they have taken a quite contrary Courſe, and by decrying, attacking and deſtroying each other, have very much leſſened that Reverence, that prodigious Reverence, which the *Aſiatics*, *Africans*, and *Americans* at firſt had for the Inhabitants of *Europe*. Yet we have ſtill vaſt Dominions, and a prodigious Power in thoſe Parts; nor has it entered into the Minds either of the Braveſt, or the moſt Ingenious of thoſe Nations, to attempt ſharing the Benefits of Commerce, or of making Repriſals upon the *Europeans*; though, for all this, we are indebted to the Diſpoſitions of all-wiſe Providence, and ſeem to be preſerved in ſpite of our own Imprudence.

The Naval Power of the *Portugueſe* received an incurable Wound by falling under the Power of the *Spaniards*; and though human Policy would have ſuggeſted, that this alone muſt have raiſed the latter to the Monopoly of Commerce, and the univerſal Dominion of the Sea; yet the very Purſuit of a Deſign ſo viſibly detrimental to the Intereſt of Mankind, proved very quickly their Ruin alſo. For the *Spaniards*, from the natural Haughtineſs of their Temper, miſled by the boundleſs Ambition of their Princes, and endeavouring to become the Lords of *Europe*, forced other Nations in their own Defence to make a much quicker Progreſs in Navigation, than otherwiſe they could have done. For the *Engliſh* and *Dutch*, who till this time ſeemed blind to the Advantages of their Situation, had their Eyes opened by the Injuries they received; and by degrees the Paſſion of Revenge inſpired them with Deſigns that poſſibly public Spirit had never excited. In ſhort, the Pains taken by *Spain* to keep all the Riches that flowed from theſe Diſcoveries to herſelf, and the dangerous, deteſtable, and deſtructive Purpoſes to which ſhe applied the immenſe Wealth that flowed in upon her from them, produced Effects directly oppoſite to thoſe which ſhe propoſed, and made her Enemies rich, great, powerful,

powerful, and happy in proportion as her Commerce dwindled away, and as her Naval Power ſunk and crumbled to Pieces merely by an improper Diſplay, an ill-managed Exertion, and a wrong Application of it.

It was from hence, that the Inhabitants of the *Seven Provinces*, whom her Oppreſſion had made poor, and her Severities driving mad, became firſt Free, then Potent, and by degrees Rich. Their Diſtreſſes taught them the Neceſſity of eſtabliſhing a moderate and equal Government; the Mildneſs of that Government, and the Bleſſings which it procured to its Subjects, raiſed their Number, and elevated their Hopes. The Conſequences became quickly viſible, and in a ſhort Space of Time amazing both to Friends and Enemies; every Fiſhing Village improved into a Trading Town; their little Towns grew up into large and magnificent Cities; their Inland Boroughs were filled with Manufactures, and in leſs than half a Century, the Diſtreſſed States of *Holland* became High and Mighty; nay in ſpite of the Danger and Expences which attended a War, made all that time againſt a ſuperior Force, theſe People ſurrounded with Enemies, loaded with Taxes, expoſed to perſonal Service, and to a thouſand other Diſadvantages, grew up to ſuch a Strength, as not only made the *Spaniards* deſpair of reducing them any more under their Dominion, but inclined them to wiſh, and at laſt forced them to ſeek their Friendſhip.

This, at leaſt as far as either ancient or modern Hiſtories inform us, was the quickeſt and ſtrongeſt of all the Productions of Commerce that the World has ever ſeen. For it is out of Diſpute, that the Republic of the *United Provinces* owes her Freedom, her Power, and her Wealth to Induſtry and Trade entirely. The greateſt Part of the Country is nothing leſs than fertile, and what is ſo, produces not enough to ſuffice the tenth Part of its Inhabitants, for the tenth Part of the Year; the Climate is rather tolerable than wholſome, and its Havens are rather advantageous from the Difficulty of entering them, than from their Commodiouſneſs in any other reſpect, at leaſt in the moſt part. Native Commodities they have few or none; Timber and maritime Stores are entirely wanting; their Country cannot boaſt ſo much as of a Coal-Mine; and yet theſe Provinces, upon which Nature has beſtowed ſo little, in conſequence of an extenſive Trade are enriched with all Things. Their Storehouſes are full of Corn, even when the Harveſt in Corn-Countries fails; there is no Commodity how bulky ſoever, or however ſcarce and hard to come at, which may not be had from their Magazines.

The Shipping of *Holland* is prodigious; and to ſee the Quantities of Naval Stores with which their Yards and Ports abound, aſtoniſhes thoſe who are unacquainted with the Vigour of that Cauſe which produces this Abundance. But above all, the Populouſneſs of this Country is the greateſt Miracle. That Men ſhould reſort to a *Canaan*, and deſire to live in a Land flowing with Milk and Honey, is nothing ſtrange; but that they ſhould make it their Choice to force Nature to raiſe Palaces, lay out Gardens, dig Canals, plant Woods, and ranſack all the Quarters of the Earth for Fruit and Flowers, to produce an artificial Paradiſe in a dead Plain, or upon an ingrateful Heath in the Midſt of Fogs and ſtanding Lakes, would in ſo critical an Age as this paſs for a Fable, if the Country did not lie ſo near us, as to put the Truth of it out of queſtion. Yet till very lately this univerſal Opulence had no bad Effects upon the Morals of the People; they were modeſt and humble in their Behaviour, temperate in their Way of living, moderate in their Expences, neat and elegant, rather than ſumptuous or profuſe in their Buildings, their Grandeur and Magnificence diſplaying itſelf in public Edifices, and in whatever elſe regarded the State. Neither were their Rulers proud, but deſpiſed Pomp, and were content to wear (as *Alexander the Great* ſaid of *Antipater*) all their Purple within; that is to ſay, they exerciſed a very high Authority without any exterior Enſigns of Dignity, and moſt happily preſerved their Power, by very wiſely declining whatever might excite Envy. If this has of late Years ſuffered any Change, and if Luxury, Pride, Ambition, Vanity and Corruption, have by degrees made their way even into theſe Provinces, they have drawn their Puniſhments, and it is to be hoped their Remedies along with them. But however that may be, the Declenſion of a State furniſhes no Argument againſt the Efficacy of thoſe Cauſes which produced and raiſed it. Induſtry and Frugality made *Holland* what it is, or what it was, and Induſtry and Frugality will produce the like Effects in all Places.

Thus, in as narrow a Compaſs as poſſible, we have traced the general Hiſtory of this Subject, from the earlieſt Accounts of Time to the preſent; we have joined Experience to Speculation, and connected the Proofs drawn for Arguments, with Facts collected from the beſt Hiſtories. And having thus eſtabliſhed beyond the power of Doubting, the Importance of Trade and Commerce univerſally conſidered, and ſhewn, that it operates alike in all Countries and in all Ages; we will next proceed to inquire into the Riſe, Progreſs, and preſent

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State of it in our own Country, in order to ſhew that we have not been leſs indebted to it than other Nations; and that if we do not derive from it ſtill greater Bleſſings than any other Nations have done, it is our own Fault. It muſt be confeſſed that the Topic is difficult, but that we will combat by our Diligence; and tho' it be perplexed enough in its Nature, we will endeavour to render it perſpicuous by our Method of treating it, being fully perſuaded that nothing can better deſerve either the Reader's Attention, or our Pains.

CHAP. III.

Of the commodious Situation and other natural Advantages of this Country, in Point of Trade; and of the Riſe, Progreſs, Declenſion, and Revival of Commerce in England, *under the Reign of Queen* Elizabeth.

THE firſt Inhabitants of this Iſland were certainly drawn over hither by the Contemplation of the many Conveniencies with which the Country abounded; for if we may be allowed the Compariſon, every Country is a kind of Stock which Nature beſtows on her Children, and ſhe may be ſaid to be more or leſs kind to them in Proportion, as this is capable of Improvement with more or leſs Pains. It is true, that ſome Writers of a lively Imagination have taken a Pleaſure in repreſenting this Matter in quite another Light, and to dwell very ſtrongly upon our natural Wants and Deficiencies. They have obſerved, that Graſs grows here ſpontaneouſly, but not Corn; that our Fruits may be reduced to Sloes, Hips, and Haws; and that our Breed of Horſes and Cattle were very deſpicable, till they were mended by Importations from other Countries. But when this comes to be thoroughly conſidered, we ſhall find, that there is no good Reaſon to quarrel with the Diſpoſition of Providence; and a little Reflection will teach us to diſcover, that Things muſt have been originally in that very State in which they are recorded to have been by the inſpired Hiſtorian of the firſt Ages; that is to ſay, the Parents of the human Race were created and placed in the moſt benign Climate, and in the moſt fertile and pleaſant of all Countries; from whence, as their Numbers increaſed, and the Arts and Sciences ſubſervient to their Happineſs were invented, they ſpread themſelves

ſelves farther and farther, improving the natural Advantages of thoſe Countries in which they ſettled, and bringing thither what they could not be without at firſt, and by degrees whatever elſe they thought expedient and requiſite to their Welfare.

Paradiſe, or a Country naturally productive of every thing needful, uſeful, or pleaſant, was not only fit, but abſolutely neceſſary to the human Species in their Infancy; but when by the juſt Decree of Heaven, Man was left to earn his Bread by the Sweat of his Brow, it became requiſite that Contrivance and Foreſight, Oeconomy and Prudence, as well as Pains and Labour, ſhould be employed to render every Country habitable and commodious. This appears to have been the Divine Will; this became the Duty of Men; and from this Diſpoſition it is plain, that the Diſperſion of our Species over the Face of the whole Earth, was conducted by that Providence that had adapted the human Faculties to acquiring, wherever they were, the Means of ſubſiſting comfortably. When therefore ſuch as dwelt on the Continent formed Projects of paſſing into, and poſſeſſing themſelves of Iſlands, they neither could nor did expect that they ſhould find the Plains ready cultivated, or the Mountains ſtored with Fruit-trees; becauſe ſuch an Expectation would have been wild and unreaſonable; they might as well have looked for Rivers of Milk, and Lakes of Honey.

But ſome Things they had juſt Reaſon to hope for, and theſe they found. A Country producing many things of itſelf, and thoſe too in vaſt Abundance. Over-grown with Timber, which when cut down, furniſhed Houſes for Habitation, Utenſils of every kind, and Veſſels for the tranſporting them, a Number of fine Ports on every Side of the Iſland, which is the greateſt Bleſſing, as well as the peculiar Glory of ſuch a Land. The Climate tolerable, and in proportion as they improved the Soil, made temperate and pleaſant; the Earth fertile in its Nature, tho' not of itſelf admirably diſpoſed for all the Uſes of human Life, ſpreading in ſome Places into wide and copious Plains, confined in others by high and ſhady Mountains, and every where watered either by large navigable Rivers, or ſmall, but ſtill uſeful Brooks. In ſhort, a Place every way fit for the Reception of rational Beings, and capable of being made by their Attention and Induſtry, what we ſee it is made, one of the faireſt, fineſt, and the fruitfulleſt Countries in *Europe*; that is to ſay, a diſtinguiſhed and excelling Portion, of the fineſt Quarter of the Earth. This is no flowery Deſcription

traced by the Pencil of Fancy, on the Canvas of a heated Imagination, but a cool and clear Repreſentation, drawn by the Pen of Impartiality, guided by the Light of Experience, and expreſſing ſimply and plainly the Dictates of Reaſon and of Truth.

We may from hence conceive, that foreign Commerce by the Natives of this Iſland muſt have been a Work of Time; for Men think firſt of Neceſſaries, then of Conveniencies, and laſt of Superfluities. Thoſe who came originally from the Continent might have better Notions of Things; but as it muſt be preſumed, that either Fear or Indigence drove them hither, ſo it is eaſy to apprehend, that ſucceeding Generations muſt for ſome time ſink much below their Anceſtors, in their Notions of the Commodities of Life, and deriving their Manners from their Circumſtances, become quite another Sort of People. But thoſe on the oppoſite Continent, knowing that this Iſland was inhabited, and having the Uſe, tho' in ever ſo imperfect a Degree, of Veſſels, and of foreign Traffic, came over hither, and barter'd their Goods for the raw Commodities of the *Britons*, till by degrees perhaps they taught the latter to make ſome Improvement in thoſe ſlight Leather and Wicker Boats, which they uſed for paſſing their own Rivers, and creeping along their Coaſts, till at laſt they ventured themſelves over to *Gaul*, and entered upon ſome kind of Correſpondence with their Neighbours. All this is ſo deducible from the Laws of Nature, that we might have divined thus much by the Light of Reaſon, if we had not the Commentaries of *Cæſar* to guide us, and to ſtrengthen by the Authority of Hiſtory the Facts that might have been found out by the Force of rational Conjecture.

Things were preciſely in this Situation when the *Romans* invaded *Britain*; and there is no doubt, that our Anceſtors falling under the Power of that Empire, and under its Power at a time, when with reſpect to Arts and Sciences it was in a moſt flouriſhing Condition, was a great Advantage to them; and tho' from their Love of civil Liberty, which when under the Direction of Reaſon, is the moſt natural and laudable of all Paſſions, they made a long and vigorous, and in ſome Senſe a noble and glorious Reſiſtance; yet by degrees they caught the Manners and Cuſtoms of their Conquerors, and grew content to be happy rather than free. With Learning and Politeneſs the *Romans* introduced foreign Commerce; and according to the Nature of their Policy, as they made high Roads through the Iſland, eſtabliſhed Colo-

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nies in proper Places, and fixed ſtanding Camps, which were a kind of Fortreſſes, where they thought proper; ſo they were no leſs careful with regard to Marts or Emporiums for the Conveniency of Traders, and of which what they found is uncertain; but that they left many is without queſtion, and amongſt the reſt *London*, which is not more famous for her preſent extenſive Trade, than venerable for her unrecorded Antiquity. A City peculiarly happy in its Situation, the Pride and Glory of this Iſland, the Fame of which her Merchants have ſpread to the utmoſt Limits of the World, while her Origin remains beyond the Reach of Search, and deſides the vain Endeavours of the moſt laborious Antiquaries.

When the *Romans* unwillingly left *Britain*, and the *Britons* as unwillingly made way for the *Saxons*, a new Deluge of Barbarity overflowed this Iſland; almoſt all the Improvements of our civilized Conquerors were defaced, and upon the Eſtabliſhmeut as it were of a new People, Things were all to begin again. This neceſſarily took up a great deal of Time, and before they were in any tolerable Poſture, the *Saxons* found themſelves diſtreſſed by freſh Swarms of *Barbarians*. Yet there ſtill remains ſome Evidences of their having been acquainted with, inclined to, and if their Circumſtances would have permitted, moſt certainly would have entered upon, and carried foreign Commerce to a great Height. We have authentic Teſtimonies, that *Alfred the Great* formed Projects of vaſt Diſcoveries to the North, as he actually ſent Perſons of great Prudence and Abilities into the Eaſt; and the Curioſities which they brought Home, were for many Ages preſerved in the Treaſury of the Church of *Saliſbury*. I ſay nothing either of his Fleets, or of thoſe of *Edgar*; tho' I am perſuaded, that the Opinions entertained of them by the Moderns, are far more deſpicable than Reaſon will warrant. But how mean ſoever their Ships were, Ships they had, and in great Numbers; and that they ſhould have theſe and Men to navigate them without any Trade, is, I think, what the Reader will hardly believe any more than myſelf; but what ſort of Trade it was, or how carried on, is a Queſtion not to be diſcuſſed here.

As for the *Danes*, they were not long our Maſters; but as they became ſo by a maritime Force, and as their Countrymen had eſtabliſhed themſelves not only on the oppoſite Shore of *France*, but in other Parts of *Europe*; ſo it is reaſonable to believe, that they held ſome Correſpondence with them from hence, and that if their Dominion had laſted longer, this might have been better regulated, and productive

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of many Advantages. But they had ſoon to do with their Brethren in another way; for the *Normans*, Men of the ſame Race, but better eſtabliſhed in another Country, diſpoſſeſſed them here, and partly under colour of Right, partly by Force, erected that Monarchy, which not without various Alterations and Changes, ſubſiſts even to our Times, and to the Subſiſtence of which, with the Help of thoſe Changes and Alterations, we owe that happy Conſtitution under which we live; that univerſal Improvement which adorns the Face of our Country; that Domeſtic Trade which nouriſhes ſo numerous a People, by plentifully rewarding their Induſtry; and that extenſive Commerce which is at once the Source of our Wealth, and the Support of our Liberty.

It cannot be expected that in a Piece like this, we ſhould attempt to trace the Progreſs of Trade through every Reign, ſhew how it was encouraged and protected, or diſcountenanced and checked; what Occaſions were luckily ſeized, or what Opportunities unfortunately loſt; for theſe would require a large Volume: the Subject, it is true, is important, intereſting, and entertaining; but at the ſame time, much too curious to be handled haſtily, much too copious to be crouded in a narrow Space; beſides, our Deſign no way requires it. It is ſufficient for us, after what has been already ſaid, to obſerve, that the Opinion commonly entertained, of our having little or no Trade before the Reign of Queen *Elizabeth*, is very far from being well founded; and yet to aſſert the contrary of this, would be to run into another Extreme equally vicious; for the middle Way in this, as in moſt other Caſes, is the beſt; and therefore as this Work is calculated for the Benefit of young People, it is of the laſt Conſequence to give them right Notions of Things, and to prevent their being led away by falſe and ill-grounded Opinions; ſince Ignorance, or rather the want of Knowledge, though a Calamity great enough, is ſtill leſs a Calamity than falſe Knowledge; for we had better conceive nothing than conceive amiſs of Things; becauſe ſuch Errors when early imbibed, are not eaſily amended. We will therefore briefly and clearly unfold the Reaſons which induce us to believe, that this Nation really enjoyed a conſiderable Trade before that auſpicious Reign, from which it is not at all in our Inclination to detract; we will next ſhew what thoſe Difficulties were, under which our Commerce laboured under the Reigns preceding that; and laſtly, we will give a ſhort Account how thoſe Benefits and Advantages aroſe, of which we have been ſince poſſeſſed.

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It is no difficult thing to make it evident from Facts, that the *Engliſh* Nation had a very conſiderable Share of Trade in all Times; and what we have already ſaid upon the Subject, is ſufficient to prove it in thoſe before the *Norman* Conqueſt From that Time, let us have leave to remember, that there was no want of Wealth in this Kingdom; that the Conqueror himſelf and his two Sons, raiſed immenſe Sums of Money, conſidering the Times in which they lived; and though theſe Sums at firſt ſight appear inconſiderable to us, yet that is only for want of due Conſideration; for as every Shilling contained then above three times as much Silver as it does now, it is plain, that every Sum they levied was three times as much as it appears to be. In the Reign of *Henry* II. Luxury was at a prodigious Height, as our authentic Hiſtories inform us; and this implies, that all Foreign Commodities were then plenty in *England*. Now it is impoſſible, that thoſe Impoſitions could be raiſed, or this Abundance of Foreign Commodities be produced, any other way, than by the Exportation of our own; for Gold and Silver were not of our own Growth then, any more than they are now. In the twenty-eighth of *Edward* III. that is, in the Year 1354, we have a Record in the Exchequer, ſhewing the Exports and Imports, by which it appears, that the Balance of our Trade produced 255,214 *l.* 13 *s.* 8 *d.* which conſidering the Difference of Money then and now, is about 737,021 *l.* 16 *s.* 11 *d.* as we reckon it at preſent; and yet there is no notice taken in this Account, either of Tin or Lead, or of other Staple Commodities, which were certainly exported; and yet all things conſidered, this muſt appear a moſt amazing Proof of the early Profits of our Commerce. We may add to this, the great Wealth of the City of *London*, which appeared by the Loans made to ſeveral of our Princes, and the frequent Exactions for confirming, reſtoring, or augmenting their Privileges, which could ariſe from nothing but Trade; and the ſame Reaſoning may be applied with a proportionable Degree of Weight to all the other Corporations in the Kingdom. The ordinary Revenue is another Proof which aroſe from Cuſtoms upon Merchandize, granted from time to time by Parliament, according to the Neceſſities of the State; and not to multiply Arguments in ſo clear a Caſe, let us add the ſeveral Statutes relating to Trade, Charters to Corporations, Grants to Bodies Politic, and to particular Perſons, all which are inconteſtable Evidences that we had Trade,

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nd that in ſuch a Degree as rendered it an Object worthy of ur public Councils.

But that after all, our Trade then was very unlike what t is now, is a thing readily agreed upon; and among the nany Reaſons that may be aſſigned for this, we will endea-our to ſtate a few of the moſt conſiderable. Moſt of our 'rinces had Foreign Dominions, and theſe entailed upon us a 'ery heavy Expence, even in Time of Peace, beſides involving us often in dangerous, deſtructive, and expenſive Wars. The Dutchy of *Normandy* was ſo expenſive, that King *John* was glad to part with it for a very trifling Conſideration. In the firſt Ten Years of King *Henry* VI. though we were n quiet Poſſeſſion, yet it coſt the Nation near Eleven Thouſand Pounds a Year; and Five Years after, the Charge was grown up to upwards of Thirty-four Thouſand Pounds a Year. In the Reign of *Edward* III. the Places we held in *France* coſt Forty-two Thouſand Pounds *per Annum*; and much more upon this Head may be ſeen in Sir *Robert Cotton*'s Diſcourſe on this Subject. The preſerving therefore, and augmenting their Foreign Territories, being the great Object of the Adminiſtration of theſe *Norman* Princes, they were the leſs able to attend our Trade, which it is certain will not flouriſh, unleſs it be attended to: Another Miſchief flowing from the ſame Cauſe, was the Want of a Naval Force; and though it muſt appear ſtrange, and almoſt incredible, yet it is nevertheleſs true, that when we had moſt occaſion for Fleets and Tranſports, we were leaſt careful about Shipping; what we had, indeed, was employed for theſe Services, and this was a great Hardſhip upon Trade; but we were forced to ſubmit to a ſtill greater, which was that of hiring from time to time great Numbers of Veſſels from our Neighbours; and this not only from the *Flemings* who lay near us, and from the *German Hanſe* Towns which were at no great Diſtance, but from the *Venetians*, the *Genoeſe*, and, in ſhort, from all Places where they could be had, and where the People would be ſo kind as to take our Money. Another, and the greateſt Grievance of all was, that for ſeveral Centuries the Bulk of our Trade was carried on by Foreigners; and by a very ſtrange Infatuation, not only Grants and Charters, but Statutes and Acts of Parliament were made for encouraging and ſupporting this Grievance. The Shipping of the *Hanſe* Towns brought us all the Commodities of the *North*; the *Flemings* poured in their Goods of all ſorts; all *Italian* and *Eaſt-India* Goods were brought us by the *Venetians*; on the other hand, the Staple

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of our Wool was fixed ſometimes at one great Town in the *Low-Countries*, ſometimes at another, and laſtly at *Calais*, but almoſt always out of the Kingdom, which was a much greater Hardſhip, than the Exportation of Raw Wool; and even this was encouraged longer than it need have been. The Merchants of the *Hanſe*, or of the *Steel-yard*, exported the greateſt Part of our Commodities, or Manufactures, from hence, down to the Reign of King *Edward* VI. and Queen *Mary*; and as for the Exchange of Money, that was intirely in the Hands of the *Lombards*; and even ſo low as Queen *Elizabeth*'s Time, many of theſe Miſchiefs remained unremedied; for as Sir *William Monſon* tells, the laſt *Venetian* Carrack that came hither was loſt in her Reign, entering the Port of *Southampton*.

By degrees, all theſe Inconveniencies were diſcovered, the great Importance of Commerce diſcerned, the proper Remedies ſought for and applied, the neceſſary Rewards of Induſtry beſtowed, and the chief Defects in our Conſtitution removed. It is the common Opinion, that we ſtand indebted for all theſe Benefits to the Reign of Queen *Elizabeth*; and it is indeed true, that many of them were brought about in that Reign, and others perfected, yet ſomething ought to be referred to former Reigns, and not a little was left to be compleated by the Succeſſor of that great Princeſs. The Truth of the Matter is, that the Politics of *Henry* VII. were of very great uſe to his Subjects; that wiſe Prince loved his own Country and People, or which had as good an Effect, he laboured to eſtabliſh his own Power by promoting their Intereſts. It was this, that engaged him to humble the Pride, and to ſap the Power of the Nobility, to encourage Traders, to protect the common People, and to emancipate all Degrees, at leaſt in a great meaſure, from that ſort of conſtitutional Slavery they were under. He was a Monarch that had no foreign Views, but was content to render himſelf formidable, by fixing his Power firmly in this Iſland, the firſt of our Kings from the Conqueſt that kept clear of Wars upon the Continent, and received Money from Abroad for keeping his own Money and his Troops at Home. By theſe Methods, and ſome others that were not quite ſo honourable, this Prince amaſſed a vaſt Treaſure, and left a Million and a half behind him in the Coffers of the Crown; a Thing that as it was without Precedent, ſo it ſtands above the Reach of Imitation.

His Son *Henry* VIII. relapſed into the old Errors of making a Figure, Fighting and Negotiating upon the Continent, by

by which he ſquandered away his Father's Wealth; and tho' to be ſure, he was very magnificent, and carried the Glory of the *Engliſh* Nation to a great Height, yet he impoveriſhed his Subjects, debaſed our Coin, and if it had not been for his Quarrels with the Pope, would have ſacrificed our Intereſts to his own Vanity throughout his Reign. The only good Thing he did, was to encourage that Spirit of Diſcovery which ſprung up in his Father's Time, and to open a Way for the Reformation, which was, in many Reſpects, favourable to our Civil Intereſts, and to our Trade in particular. In the ſhort Reign of King *Edward*, ſome of his principal Miniſters, ſuch as Sir *William Cecil* and Sir *Thomas Smith*, had very true Notions of Commerce, and laboured very ſincerely for the Good of their Country. But all the Good they did, was in a manner overturned in the ſucceeding Reign of Queen *Mary*, which however did us very ſingular Service in this Reſpect, that it for ever demoliſhed all Notion of connecting our Intereſts with thoſe of the Continent, farther than was requiſite for our own Defence, and to keep the Scene of War at a Diſtance. Thus the Miſeries of a Country frequently in one Age, become the Cauſes of its Felicity in another.

The Reign of Queen *Elizabeth* was Great and Glorious, in whatever Light we conſider it, but it has always appeared moſt ſo to me in this, that it became Great and Glorious by the Bleſſing of God upon the Wiſdom and Prudence of the Queen and her Miniſters. This Nation never was in ſo deſperate a Condition as at her Acceſſion. The Crown was in Debt, the Treaſury empty, the Nation involved in a foreign War directly againſt her own Intereſts, her Coaſts naked; in a word, without Credit abroad, and without Concord at home, no ſettled Religion, the great Men ſplit into Factions, and the common People diſtracted, and dejected. Sad Circumſtances theſe! and yet from hence aroſe the Grandeur of that Reign, and the Eſtabliſhment of our Commerce. The Queen found herſelf obliged to act with great Caution to derive Aſſiſtance from every Quarter, to employ it faithfully, and to promote to the utmoſt of her Power, the Welfare of her Subjects, whom nothing but the Public-ſpiritedneſs of her Government, could enable to grow Rich enough to ſupport the neceſſary Expences of the Crown. It was this gave a popular Turn to her Councils, and taught her to be the Mother, that ſhe might be the Miſtreſs of her People. She encouraged them to arm againſt the *Spaniards*, that they might be accuſtomed to the Sea, and ac-

quire that Knowledge in Navigation, with which, till then, they had been unacquainted. She paſſed many Laws for the public Good, erected ſeveral Companies, and ſaw that thoſe Companies purſued the Ends for which they were erected; in ſhort, ſhe did every thing that could be expected during the whole Courſe of her Reign, to excite and encourage Induſtry at home, and to enable us to make a proper Figure abroad; not as Buſy-bodies, meddling in every Quarrel, but as an active and trading People, and by Degrees as a Maritime Power. In a word, ſhe furniſhed us with Stock and Credit, put us upon improving our Commodities and Manufactures, brought the Art of Ship-building amongſt us, filled our Ports with able Seamen, ſhewed a juſt Reſpect to *Engliſh* Merchants, reduced *Ireland*, ſo as to render it beneficial to *Britain*, and approved our ſending Colonies into *America*; and thus the Seeds of our Wealth were ſown in her Time, though the Harveſt was reaped in the Days of her Succeſſors, till we grew wanton with Plenty, and hazarded all we had obtained, by a Civil War, that not only checked the Growth of our own Commerce, but gave vaſt Advantages to our Neighbours, which with equal Induſtry and Prudence they purſued. This is a ſhort, and to the beſt of my Judgment, a true Hiſtory of our Commerce, from its firſt Riſe to its full Growth; we will next endeavour to ſhew what it now is, and what Advantages we derive from it.

CHAP. IV.

The natural Advantages, diſtinguiſhing Prerogatives, and valuable Commodities of Britain; *together with ſome Remarks on their Conſequences, in augmenting the Wealth, as well as increaſing the Number of its Inhabitants.*

IN order to judge of the peculiar Value, and to form a right Idea of the true Character of any Country, we ought to conſider firſt, the intrinſic and natural Advantages, and next the Conveniencies of which it ſtands poſſeſſed, with reference to its Safety from powerful Neighbours, Intercourſe with its natural Allies, and Commerce with the reſt of the habitable World. For by a due Attention to each of theſe Points, joined with a perfect Comprehenſion of their Correſpondence

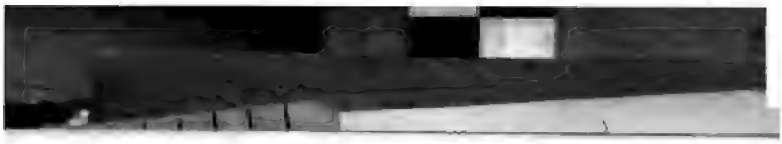
reſpondence and Connection with each other, we may be enabled to frame a right Eſtimate of the Worth of any Country; that being to all Intents and Purpoſes the beſt, and the moſt conſiderable, in which they all conſpire, and ſo in proportion, as they have more or leſs, either of natural Commodities, or Conveniencies for foreign Trade. But we muſt carefully obſerve, that though the firſt is of real Benefit, yet the latter is of infinitely greater Service: for it is very poſſible, for Countries to be rich and fruitful in themſelves, as *Poland*, *Hungary*, and *Tranſilvania*, and yet the Inhabitants in general very poor; as on the other hand, a Country in itſelf may be mean and poor, and yet from its Situation, and their own Induſtry, the Inhabitants may be rich and proſperous; as for inſtance, in the State of *Genoa*, *Switzerland*, and above all, the Dominions of the States General of the *United Provinces*.

There is a natural Affection, and if I may be indulged the Expreſſion, a laudable Partiality in every Nation for its own Country; and there is no doubt, that the People of *Britain* have in all Ages had their Share of this Diſpoſition; and yet independent of this, we may ſafely affirm, that with reſpect to natural Advantages (for as to other Excellencies, we ſhall examine them in our ſubſequent Chapters) there are very few Countries that are bleſt with greater than our own. There are indeed warmer and richer Climates, but very few ſo temperate, ſo wholſome, and ſo pleaſant. Our Summers are moderately hot, and our Winters for the moſt part are very tolerable in reſpect to Cold; ſo that we are free at leaſt, from thoſe Inconveniencies that are produced by either of theſe Extremes, and enjoy all, or the greateſt Part of thoſe Advantages, which are the Boaſt of other Climates. We have almoſt every kind of Soil within the Compaſs of our Iſland, and the Improvements made of late Years eſpecially, have naturalized many of the Fruits, a great Variety of medicinal Plants, and ſome of the moſt valuable Commodities of other Countries. As for inſtance, Apricots, Peaches, and Melons, nay, the Pine Apple too, come here to very high Perfection. Saffron is not inferior to any in *Europe*, and Woad, Madder, Safflour, Hemp, and Flax, arrive at full Maturity here, though none of theſe are Natives of our Country. Our Paſtures may be juſtly ſtiled Excellent, and the Verdure of this Country ſtrikes Foreigners with Wonder. The Land is charmingly diverſified with ſpacious Plains, beautiful Hills, fruitful Vallies; and though in ſome Places it ſwells into rugged Mountains, and even into a

kind of Alpine Ridges, that run their rocky Courſe for many Miles together; yet even theſe, though barren on the Surface, contain infinite Wealth in their Boſoms, and pour out many noble navigable Rivers that furniſh us with the Conveniency of Water-Carriage, and thereby contribute to Domeſtic Trade, and that happy Intercourſe between all Parts of the Iſland which communicates its Bleſſings, and is thereby the Parent of univerſal Plenty.

There is no Wonder therefore that ſo amiable an Appearance, either excites a ſtrong Affection in the Natives, or has Charms ſufficient to invite over Strangers, or to retain amongſt us ſuch as accidentally come hither. The ſtrongeſt Teſtimony in favour of any Country, is the Number of its Inhabitants; and for the laſt two Centuries, the Increaſe of People in *Britain* has been prodigious. The Bleſſing is ſtill continued to us, not only by the inviting Proſpect of our Country, but by the ſuperior Excellencies of our Civil Conſtitution, which may be ſo truly ſaid to tranſcend thoſe of our Neighbours, and even of ſuch as make the higheſt Boaſts of Liberty, that in reality there is no Compariſon between them. In other Countries, a Man muſt be of a certain Rank, or attain to a certain Fortune, before he can taſte the Sweets of Freedom; but in *Britain* the Meaneſt is upon a level with the Greateſt, and while he infringes no known Law, his Privileges are the ſame, and he has as little to fear. In all other Countries, there is a kind of Eccleſiaſtical Juriſdiction, that lays Men under various Inconveniencies; but with us there is no ſuch thing, every Man has the Power of worſhipping God his own Way, and no Man is allowed to diſturb another for not worſhipping his Way. As our Liberty is extenſive, ſo our Property is ſecure; a Stranger here may employ his Money in what manner he pleaſes, and when, either by Induſtry or Frugality he has augmented his Fortune, he may do with it what he thinks fit while he lives, and leave it to whom he thinks fit when he dies. In moſt Trades the Maſters in our great Cities give conſiderable Wages, Artiſts are as much encouraged here, as in any Part of *Europe*; and in ſhort, there are ſo many Ways of getting Bread in this Iſland, and it may be eaten, when got, with ſo much Satisfaction and Pleaſure, that it is no wonder that moſt People return from our Factories and Plantations when they have done the Buſineſs they went for, or that Strangers reſort hither annually in ſuch Crouds as they do.

The



The Fruitfulneſs of a Country, joined to the Number and Induſtry of its Inhabitants, ſerve to produce and to augment its Commodities, of which ſome without Sagacity are not to be diſcovered, others are not to be obtained without Labour, and few or none are rendered of immediate Value without being at ſome degree of Trouble and Expence. Yet theſe are very juſtly ſtiled Natural Advantages; becauſe, let the Number of Inhabitants be what it will, let their Pains be ever ſo great, and their Skill ever ſo extenſive, though they might find it eaſy to improve, they will by Experience be taught, that it is impoſſible to force Nature. But we meet with no ſuch Obſtacles here; the Number of our Commodities might be eaſily augmented, and yet it would be very hard to compute very exactly what we have already. The moſt conſiderable, however, are theſe. In our Paſtures we feed all ſorts of uſeful Animals; our Sheep are the peculiar Glory of the Iſland, as their Wool is one of its Staple Commodities. We have an excellent Breed of Black Cattle; thoſe of *Lincolnſhire* and *Holderneſs*, not inferior in Size, or any other way, to thoſe of *Dalmatia* or *Sclavonia*; theſe, beſides their Fleſh, yield us Variety of Commodities, ſuch as Leather, Tallow, Horns, *&c.* We have likewiſe Horſes, and thoſe almoſt of every Kind, ſmall, ſtrong, and yet ſerviceable, which notwithſtanding, may be bought cheap, and are kept at a ſmall Expence; others of the large Draft Kind, equally valuable for their Soundneſs and their Strength; for the Saddle, hardly any Country produces better, and very few ſo good. Of Race Horſes, which are of great Conſequence in forming and maintaining our Studs, we have thoſe that are excellent in their Kind, and have fetched very high Prices; neither are we, that I know of, deficient with reſpect to any ſort of uſeful Animals. As for the Produce of the Earth, we have Corn of all ſorts, each good in its Kind, and in great Quantities, *viz.* Wheat, Barley, Oats, and Rye, as alſo Beans and Peas, with other kinds of Pulſe. Oily Seeds in great Abundance, ſuch as Rapeſeed, Linſeed, Coleſeed, Muſtardſeed, *&c.* the fineſt Saffron, Teazles, Woad, Madder, *&c.* for the uſe of Dyers; Hemp and Flax, Cyder, Honey, Cheeſe, *&c.* and Timber of all ſorts. In the Bowels of the Earth again, we have a great Variety of uſeful Clays, ſuch as *Fullers*-Earth, *Windſor* Loam, Tobacco-Pipe Clay, as alſo various other kinds for the uſe of Potters, Fullers, *&c.* Medicinal Earths; not to mention what is made uſe of for Tiles, Bricks, Plaiſter, Flooring, Ceiling, *&c.* a vaſt Variety of uſeful Stones, from Fire-ſtone, Lime-ſtone, *&c.* to Free-ſtone, *Purbeck*, *Portland*,

Portland, and even Alabaſter and Marble. Minerals of many kinds, ſuch as Antimony, Lapis Calaminaris, Black Lead, *&c.* Coal Pits and Sea Coal, Jet, Cryſtal, Allum, Copperas, Salt, and moſt kind of Metals, ſuch as Tin, Lead, Iron, Copper, Silver, and many other Things.

We may add to all theſe, as properly belonging to this Country, and making a Part of its natural Riches, the Commodities that are brought from our Plantations, which are very numerous; but the chief of them are theſe, Sugars, Melaſſes, Ginger, Tobacco, Indico, Pimento, Cotton, Cocoa, Drugs, Rice, Tar, Turpentine, Train Oil, Whale-fins, Peltry or Furrs, Maſts, Pitch, Roſin, Logwood, Fuſtick, Walnut-tree Plank, Cedar, *&c.* It is true, that moſt of theſe contribute, either to our Manufactures, or to our Exportation abroad; but in this Chapter, I conſider them barely in the Light of Commodities, and of *Britiſh* Commodities, as being the Produce of our Fellow-Subjects Labour, though at a diſtance; or they may be conſidered in another light as our own, ſince they are purchaſed and come into our Poſſeſſion by the Exchange of natural Commodities, or at leaſt, a very great part of them, and as for the reſt, I do not pretend to meddle with them here. In regard to our Fiſheries at Home and Abroad, I ſhall treat of them in a Chapter by themſelves.

In order to form a Judgment of the great Advantages that ariſe to a Country from a Multitude of Commodities, we are firſt to conſider with what Labour they are attained, and how this contributes to the Subſiſtence of incredible Numbers of different Ranks and Degrees. As for inſtance, what prodigious Swarms of People are maintained by Tillage from the Land Owner, or Poſſeſſor of the Soil, down to the Boys that hold the Plough, and the Women that glean in the Harveſt! If we turn our Thoughts to the Saffron Culture in *Eſſex* and *Norfolk*, we ſhall find that it gives Bread to the Inhabitants of ſeveral conſiderable Villages, and of ſome Towns; the ſame may be ſaid of Hemp and Flax, not conſidered in the light of Manufactures, but as Commodities only, for they paſs through a great Variety of Hands in their Cultivation and Dreſſing, before they come to the Market as raw Commodities. We may carry our Notions much farther, if we conſider Hops in this light, the planting, hoeing, weeding, picking, and drying of which, employ a Multitude of Hands, and conſtitute the chief Part of the Riches of different and diſtant Parts of the Kingdom; for example, in *Hampſhire* and *Surrey*, in *Kent* and

in

in ſeveral of the Weſtern Counties. With reſpect to Stone, Lime, and Clay, as well as Chalk, and other Things dug out of the Earth, they furniſh Subſiſtence alſo in the firſt Inſtance, to great Numbers. Yet all theſe are but few, in Compariſon of thoſe that get their Bread in the Coal-Mines, amounting in the different Parts of this Iſland to many Thouſands of Families; neither are theſe more numerous than thoſe that are employed in the Salt, Copperas, Allum, and other Works of that Nature. And perhaps all theſe taken together, yield in Number to thoſe who are ſubſiſted by Minerals and Metals; ſince theſe are ſo conſiderable as to form diſtinct Bodies of People, who in that light are governed by particular Laws, enjoy ſeveral Privileges and Immunities, and are compenſated for the extraordinary Pains they take by many other Advantages. Such are the Tinners in the *Weſtern* Counties under the Protection of the Lord Warden of the Stannaries, who, as often as occaſion requires, has Power to call an Aſſembly, which has the high Title of the Parliament of Tinners, and the Prerogative of making Laws for redreſſing Grievances and promoting the Intereſts of theſe People. The ſame may be ſaid of the Miners in *Derbyſhire*, who have alſo great Privileges derived from peculiar Juriſdictions. Thoſe who work in the Iron and Lead Mines in the *North*, have their Share alſo in the like Immunities, and all together make up a vaſt Body of robuſt, active, and ſtout People. We may from hence diſcern, that the Labour neceſſary to the procuring of Commodities, is in itſelf a vaſt Advantage to a Country, as it furniſhes Employment to the Poor, creates a neceſſary Intercourſe between a vaſt Variety of Artificers, occaſions the erecting a Multitude of Villages, and ſome large Towns, at the ſame time that it renders the Proprietors of the Soil, from whence theſe Advantages are raiſed, rich in reſpect to Property, and at the ſame time conſiderable in regard to Influence.

But before we quit this Subject, there is another Point that alſo requires our ſerious Conſideration, and that is the Benefits ariſing from Carriage, which are ſtill greater and more conſiderable than thoſe that have been already mentioned. The Reader will eaſily diſcern that this may be applied in moſt of the Inſtances conſidered under the former Head; but becauſe we will endeavour to be as conciſe as is conſiſtent with Perſpicuity, we will inſiſt only on *two*, and thoſe but briefly. The firſt ſhall be Corn, in the Management of which, there are generally ſpeaking, four

Sorts of People concerned, *viz.* Corn-factors, Meal-men, Malſters, and Carriers. The former, that is, the Corn-factors, travel over the whole Iſland, in order to make the beſt Bargains they can with the Farmers, and having their Correſpondents in moſt of the Parts in the Kingdom, take their Meaſures for conveying the Corn they purchaſe to the Place of Embarkation, ſometimes by Land, ſometimes by Water-Carriage. The Meal-men are thoſe that ſend up the Meal to *London* by Barges, from all the Counties bordering on the *Thames*, or on any navigable River running into the *Thames*; there are ſome alſo about *Chicheſter*, *Arundel*, and the Coaſts of *Suſſex* and *Hampſhire*, who ſend Meal by Sea, who have Factors to ſell it for them at *Queenhithe*, and other Markets. By this means the Millers in that Part of *England*, which is near the *Thames*, from being conſidered as a mean, low, and labouring kind of People, are grown to be Perſons of Figure and Subſtance; ſo that upon ſome large Rivers near Town, there are Mills let for three or four hundred Pounds a Year. Malſters are, ſtrictly ſpeaking, Manufacturers, and therefore ought not to come under this Head; but we conſider them in another light, that is, merely as Purchaſers of Barley, a Commodity for which there are a Variety of Markets, ſuch as *Kingſton*, *Chertſey*, *Farnham*, *Winaſor*, *Wickham*, *Reading*, *Wallingford*, *Abingdon*, where you might have ſeen formerly five hundred Waggons of Barley in the Market on a Day; but as this Trade has increaſed, the Markets have fallen off, which is owing to the Method of dealing by Samples; ſo that inſtead of ſending his Waggons, a Farmer carries only a Handful of his Corn in a Money-bag; and whereas he formerly dealt only for the Quantity that came to Market, he now deals for his whole Stock at once, which is a Practice againſt Law, or rather againſt many Laws, for preventing ingroſſing, regrating, or foreſtalling the Markets; and though without doubt it is highly beneficial to Individuals, yet it is a great Prejudice to the Public, as it is injurious to Market-Towns, hinders that Concourſe of People and Horſes, which a Market naturally draws, and is attended with other ill Conſequences that I have not room to enumerate. As for the Carriers, their very Name ſhews their Occupations; and therefore we need ſay no more about them, except that their Number is great, and that the Method they take to ſubſiſt their Families, is at the ſame time highly beneficial to Society.

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The other Inſtance I propoſe to mention is Coals, and the Carriage in this Article is really an amazing Thing. Let us endeavour to ſet this in a clear Light. Coals at the Pit are commonly bought from two to four Shillings *per* Chaldron; but by that Time they come to the Conſumer, they frequently coſt ten times that Money, which is entirely owing to Carriage. The *Newcaſtle* Coals, with the ſmall Charges that attend bringing them to the Wharf, are ſold there for five Shillings a Chaldron; they are then ſhot from the Storehouſe, which is called a Steath, into Lighters; this is the firſt Loading; from the Lighters they are thrown by Hand into the Ships, which is the ſecond; from the Ships they are delivered by Coal-Meters into Lighters at *London*, which is the third Loading; from thence they are put on board Barges for all the Towns up the *Thames*, this is the fourth; and to all Towns that do not ſtand immediately upon the River, they are carried in Waggons, which is the fifth Loading; and in theſe Towns the common Price is fifty Shillings, from which if you deduct the Tax of five Shillings, it will appear that the Price of Carriage amounts to eight times that of the Commodity. It is the ſame thing with reſpect to other heavy Goods in Proportion; the Cheeſe ſent up from *Warwickſhire* to *London* and *Sturbitch-Fair*, amounts to twenty thouſand Tons *per Annum* at leaſt; of that kind of Cheeſe which paſſes under the Denomination of *Cheſhire*, there comes thirty thouſand Tons to *London* every Year; and of *Suffolk* and *Cambridge* Butter, fifty thouſand Firkins, of half a hundred Weight each. We cannot from theſe Facts form any Computation of what this Article of Carriage amounts to, but we may form a Notion of it; we may from hence conceive that Multitudes are maintained by it, and that conſequently it is of vaſt Advantage to Society.

As by Water-Carriage, Boat-Builders, Bargemen, Porters, and other People are maintained; ſo for their Conveniency Numbers of Villages are built on the Sides of great Rivers, and by degrees many of theſe improve into good Towns. As for Land-Carriage again, Cart-wrights, Waggon-wrights, Wheel-wrights, Smiths, Harneſs-makers, *&c.* are ſupported by it in the firſt Inſtance; in the next, it produces an excellent Breed of Horſes, which are of vaſt Value; to the ſame Cauſe alſo we owe our fine Roads, that are maintained at a great Expence and the making and repairing of which employ Thouſands; add to this Inns, Villages, where theſe Carriages bait, and the Market-Towns that form their reſpectiv Stations in long Journies; ſuch as from *London* to *Exeter*, which

which is one hundred and ſixty Miles South-Weſt; to *Edinburgh*, which is upwards of three hundred Miles directly North; to *Cheſter*, which is upwards of one hundred and fifty Miles North-Weſt; and not to name more, to *Norwich* and *Yarmouth*, which is upwards of one hundred Miles to each North-Eaſt. Let us conſider what a Number of Coaches, Pack-Horſes, *&c.* are conſtantly and regularly employed to and from theſe Places the whole Year round; the Value of theſe Carriages and Cattle, the Wear and Tare of the one, the Loſſes that neceſſarily attend the other, the Number of Perſons belonging to them, the Paſſengers that go with them, excluſive of Goods, their Expences on the Road; how much Towns decline by the changing of a Road; how ſoon they are raiſed, and how quickly they flouriſh from the ſame Accident in other Places. I ſay, let us meditate a little on all theſe Things, and we ſhall ſoon have an Idea of the prodigious Advantages that ariſe from the Domeſtic Trade of this Iſland; tho' after all, this is far from being conſiderable, when it comes to be compared with the Benefits reſulting from our foreign Commerce, and yet they mutually aſſiſt and promote each other.

CHAP. V.

Of the Britiſh *Manufactures; the Difference in working upon Native, Plantation, or Foreign Commodities; the Nature of our Manufactures briefly explained, and the Advantages ariſing from them clearly pointed out; together with ſome particular Inſtances examined more at large, that their Importance may the better, and more effectually appear.*

THE Subject of Manufactures is one of the moſt difficult that can be undertaken, as well as one of the moſt curious, inſtructive, and important, if it could be fully and properly handled, which, ſo far as I know any thing, has not been hitherto attempted; an Account of it might be juſtly ſtiled the Hiſtory of human Induſtry; but conſidering the extenſive Learning, the Variety of Knowledge, and the prodigious Capacity that the Elucidation of ſo diffuſed a Topic would require, we can hardly expect it, much leſs in a Work like this, which is not a Syſtem of, but an Introduction to Science; and in which we propoſe only to lay down the firſt Elements

Elements of Things, for the Information and Improvement of the opening Genius, which is always the moſt active, and the moſt vigorous, as well as the moſt inquiſitive.

What therefore we have in view in this Chapter, is to give the Reader a tolerable Notion of the Value, Nature, and Conſequences of Manufactures to this Country, and that in as conciſe a Manner as it is poſſible; ſo that he may entertain a tolerable Idea of the Difference between the State of a People active and induſtrious, and thoſe that live either in an idle Plenty, from the Fertility of the Country in which they are ſettled; or who content themſelves with little, that they may enjoy their natural or habitual Indolence, of both which there want not Inſtances in *Europe*. The Difference likewiſe between a People living and trading on the Produce of their Commodities only, and thoſe who addict themſelves to Manufactures which at different Times has been the Caſe of the People of *Great Britain*; to which we may add the Difference between ſuch as barely manufacture their own Commodities, ſuch as manufacture the Commodities of other Countries entirely, and ſuch as employ themſelves in the joint Manufacture of both; all of which are practical Caſes, which when rightly underſtood, will contribute very much to the thorough underſtanding a Subject perplexed enough in itſelf, and which has been ſometimes rendered more ſo, by being injudiciouſly treated.

It is an old and a very juſt Obſervation, that there is hardly a wider Difference between the human Species and Brutes, than between one Part of Mankind and another. In ſome Countries happily ſituated, where the Means of Subſiſtence are not difficult, the Inhabitants either take up with what they can find; or to a little Tillage, add an Application of a mixt Nature, that is compounded of Labour and Diverſion, ſuch as Hunting, and Fiſhing; and thus they paſs their Days in a State of Nature, as ſome call it, or rather are with greater Propriety as we ſtile them, Savages. Some again ſink ſtill lower, and value themſelves upon their nearer Approach to Brutality, pretending that it is the Vices only of Mankind that put them upon Labour and Invention; and that they may live very happily with a very ſmall Share of either. The firſt is the Caſe of the *American Indians*, who cultivate a few Fields of Maiz, and ſupply the reſt of their Neceſſities, either from the Woods, or from their Rivers and Lakes. The latter is the Practice of the *Hottentots*, who go cloathed in Skins, eat the Fleſh of Animals half raw, and lodge in Huts much inferior in Point of Elegance to Hogſties. It is commonly imagined,

magined, that theſe People live thus becauſe they know no better; but this is a Miſtake, they really value themſelves upon this Way of living, and perſuade themſelves that it is the beſt. Whether it be ſo or not, we ſhall be thoroughly enabled to judge, by conſidering the Figure that *New-England*, *Virginia*, *Penſilvania*, *Maryland*, and *New-York* make at this Day, in the Poſſeſſion, and with the Improvements made by the *Engliſh*, compared with a State of thoſe Countries when in the Hands of their original Proprietors; and the Condition of the *Dutch* Colony at the *Cape of Good-Hope*, when brought into a Parallel with the State of the *Hottentots* before-mentioned, in the ſame Country. Theſe duely weighed will enable us to make a general Diſcovery of the Advantages that attend on Induſtry, and teach us to ſet a juſt Value upon the Benefits that reſult from Arts and Sciences, when applied to the heightening and improving the Gifts of Nature, and thereby rendering the Condition of the human Race more comfortable, as well as more pleaſant. We may alſo render theſe Notions ſtronger and more correct, by reflecting on the Condition of our own Country, when we had few or no Manufactures amongſt us, when the Property of Lands belonged entirely to the Crown, the Nobility, and the Clergy, when the reſt of the People were but Vaſſals, not Tenants, to theſe; and when the whole of our Trade conſiſted in exporting our natural Commodities, and that too by Foreigners, for the moſt part in foreign Bottoms. I ſay, we may ſtrengthen our Notions by comparing this, which was really the State of our Anceſtors, with that in which we live, when all Men are alike free, and when all who will apply their Time and Labour to right Purpoſes, may enjoy an independent, a comfortable, and a convenient Subſiſtence.

It is looked upon to be both a Credit and an Advantage to the *Dutch*, that they have very few Commodities of their own Growth; ſo that the Plenty they enjoy, and the Commerce they carry on, is purely the Effects of Induſtry; and it is very truly ſaid, that they owe in a great meaſure the prodigious Quantity they have of Shipping, to their importing foreign Commodities, as well as exporting them when manufactured. There is a great deal of Truth in all this; and moſt of thoſe Writers who are fond of magnifying the *Dutch*, have ſhewn a great deal of Eloquence in ſetting it in the faireſt and ſtrongeſt Light poſſible. But ſtill there is one Light in which they have never conſidered it, and that is this. Their depending entirely upon foreign Commodities, places them in a State of great Inſecurity; for either by their

their being upon ill Terms with certain Nations, they may for a long time be deprived of the Materials they moſt want, or Things may take a new turn, and thoſe Nations ceaſe to deal with their old Cuſtomers, or in Proceſs of Time theſe People may take it into their Heads to manufacture their own Commodities, in all which Caſes they are ſubject to the moſt ſenſible Detriment, without having any effectual Remedy in their power; whereas we, who have a large Stock of valuable Commodities of our own; and if we found it at all neceſſary, might increaſe even theſe, can never fall into any ſuch Difficulty, but are ſure never to want ſufficient Materials for our Home Manufactures, and which is ſtill more, are equally as ſecure of obtaining from Abroad thoſe Commodities which are moſt requiſite for the Employment of our working People, by the Exchange of Commodities which our Neighbours cannot well be without, and of which, as I ſaid before, it is impoſſible we ſhould be deprived. Therefore, though at certain Seaſons, the Commerce of the *Dutch* may flouriſh ſurprizingly, and extend itſelf vaſtly, yet they may be ſubject to ſuch Reverſes of Fortune, as cannot well happen to us.

We have endeavoured in the former Chapter to enumerate, at leaſt, the principal Commodities which this Iſland produces, as alſo the chief of thoſe that are imported from our own Colonies; but beſides theſe, we have infinite Quantities from Abroad. At firſt ſight, one would imagine that this could not be any other than Loſs to this Country; and narrow Minds would be apt to argue, that if we could work upon our own Commodities, and vend them Abroad, we need not be at the Expence of working upon other People's Goods; and yet this is ſo far from having any thing in it of Senſe, Reaſon, or ſound Policy, that there is nothing ſeems ſo highly to our Advantage, as the manufacturing Commodities of foreign Growth, and that for this Reaſon; we, generally ſpeaking, purchaſe them either with Goods of our own, that are incapable of being manufactured, ſuch as Corn, Coals, Salt, *&c.* or with our own Manufactures that exceed our Home Conſumption, the diſpoſing of which is therefore ſo much clear Gains to the Nation, and the bartering it for Commodities infinitely more beneficial, than if we brought home the Produce in Gold and Silver; becauſe, notwithſtanding theſe are intrinſic Riches, and the acquiring them the ultimate View of all Induſtry and Commerce, yet the obtaining them, in this ſhort manner, would add nothing to the Stock of the Nation, in compariſon of what

what is added to it by our taking off raw Commodities, working up theſe, and thereby employing a vaſt Number of Hands, after which, a very large Proportion of theſe Manufactures are again exported, many of them, perhaps, to the very ſame Countries out of which the raw Commodities they are made of, were originally brought. Thus the Reader clearly ſees, what a prodigious Advantage accrues from adding to that national Stock which we have, and that acquired Stock which we derive from our Colonies, ſuch an additional Stock from foreign Countries.

But a few Inſtances will make this much plainer, and at the ſame time make the Point we labour infinitely clearer than reaſoning upon it ever ſo long; for example then. The Raw Silks we import from the *Levant*, the *Eaſt-Indies*, and *Italy*, are dyed, ſpun, thrown, and then wove into broad and narrow Silks, Ribbons, Galloons, Fringes, *&c.* and ſo become *Engliſh* Manufactures; Cotton, Cotton-Yarn, Hair, Grograms, *&c.* all uſed and manufactured here at Home, and in ſeveral ſorts of Goods, chiefly Cottons, Fuſtians, Dimities, and *Mancheſter* Wares, loſing their Species, and becoming *Engliſh* Manufactures, as the Silk; Kid-ſkins are all manufactured, and loſing the very Name of their Kind, are ſold in Gloves, and that only. Elephants Teeth, chiefly made into Combs and Toys, become a Manufacture of Ivory. Tin Plates are manufactured by the Tinmen into all ſorts of Kitchen Utenſils, Lanterns, Watering-Pots for Gardens, Caniſters for Tea, Funnels for Chimneys, Speaking-Trumpets, and the like. Black-Latten is manufactured into all kind of Braſs-Work, but eſpecially Clock-Work, Movements for Watches, Wheels, *&c.* Clap-Board, Wainſcots, and Staves, manufactured into Cabinet-Work, Wainſcotting, and Cooperage for making of Caſks. Hemp manufactured by the Rope-makers into all kind of Cordage, Cables, and Rigging for Ships. *Swediſh* Iron and Copper manufactured into innumerable Cutlery, Foundery, and Armoury Wares, too many to dwell upon. Beaver Hair manufactured into Hats. *Spaniſh* Wool mingled with our own, and wrought into fine Broad Cloths and Druggets, called therefore *Spaniſh* Cloths and *Spaniſh* Druggets. All the Dye Stuffs uſed in their proper Places, for the dying all ſorts of Goods which paſs that Operation, to fit them for the Trade. Oil generally uſed in our Woollen Manufactures, and if not, then made up into Soap. Sulphur and Salt-Petre manufactured again into the dangerous Trade of making Gunpowder.

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These, as I said before, are but a few Instances out of many, but they are sufficient for my Purpose, as they very fully and unquestionably prove the Truth of what I have advanced, and serve as excellent Examples in support of this Doctrine, that we are more inriched by bringing home Commodities, than we should be by having our Returns in Bullion. They may also serve to prove what vast Advantages we draw from having such a Variety of valuable Commodities of our own, as not only to serve to furnish us with a multitude of Manufactures, but likewise procure us by Exchange, additional Materials from every Quarter of the Globe. Yet after all this, my Design will be but imperfectly executed, unless I can make my Reader comprehend of how trifling Value Commodities with all the Consequences that attend them in Point of Labour and Carriage are, when compared to Manufactures. It is this, which shews the Superiority of Art over Nature, or rather the amazing Improvement of the former on the latter. We will endeavour to explain this too in some measure by Facts. There is hardly any thing of so little Value in the World, which Industry, under the Direction of Art, cannot raise into Price. What is there in Nature so contemptible as the Kennel Dirt in our Streets? And yet this, under the Name of *Spanish*, is a necessary Material in making Bricks; and thus the Dirt, which the Scavenger removes as a Nusance, comes back to the very Place in the Shape of an Ornament, and lays the Foundation of a Palace some Years afterwards, in the Streets out of which it was swept with Contempt. What is there so neglected, or despised, as Rags, unless it be the poor Wretches that are employed in picking them up? And yet even these get a Livelihood by that Employment, mean as it is. These Rags, when pick'd, sorted, and laid together, are preserved in Warehouses that pay a considerable Rent; they are conveyed from thence, either by Land or Water, at a considerable Expence for different Purposes, but all serve for some Purpose or other. Part indeed is converted into a kind of Manure, part is employed in making brown Paper, and part in making white; so that, as a polite Writer wittily observed, a Lady's Holland Shift when wore out, may have the Chance of returning to her in the Shape of a Billet-Doux. In former times, that is, a little before the Revolution, white Rags were sold for about three Pounds *per* Tun, but since that time, they have risen to ten Pounds per Tun; and according to a moderate Computation there are at least three thousand Tun collected annually within

the Bills of Mortality, which wrought up into Paper amounts to a vaſt Sum of Money; and yet this, in one Senſe, may be ſaid to ariſe almoſt out of nothing. That the Horns of Black Cattle are of ſome uſe every body knows, but that they may be applied to, and are actually the Foundation of ſeveral Manufactures, is what many People are not acquainted with. Theſe Horns are firſt ſuffered to dry for two or three Months; then they are cut into fit Lengths; they are next held with a Pair of Pincers over a ſmall Wood Fire till they become pliable; next they are cut length-ways, and being turned open by a Man who holds a Pair of Pincers in each Hand, they are extended till they become almoſt flat, after which they are put between two hot Iron Plates rubbed with Greaſe, and ſo thruſt into a Hole in the Earth, upon which they place a wooden Wedge; this is beat with a Mallet, till by preſſing the Iron Plates and remaining between them a conſiderable, time, the Horn becomes perfectly ſmooth and flat. After this the Edges are pared, and the Horn Plates are ſold to Comb-makers, Spectacle-makers, to ſuch as make Tobacco-Boxes, Fan-Sticks, *&c.* As for Lantern Plates of Horns, they undergo a much longer Operation. Thoſe who are employed in the firſt part of this Manufacture, are called Horners, and of theſe there were above twenty in *London* fifty Years ago, and all of them in good Circumſtances. The very Shavings are ſold for various uſes, at ſo much a Sack. The Spectacle-makers when they have cut out their Rings, ſell the round Piece in the middle to the Turners to be nailed upon Mops. The Tops of the Horns are converted into a number of uſes, ſuch as the Hafts of Knives, Crutch-Stick Heads, Inkhorns; and thoſe that are not fit for Plates, are converted into Gunpowder-Horns, Drinking-Horns, Blowing-Horns, Shoeing-Horns, beſides Spoons, Butter-Knives, *&c.* and the very Tips are uſed by the Bowyers, to make the Ends of their Bows. Thus we ſee the moſt contemptible Things in Nature, inſtead of being uſeleſs in the Hands of induſtrious People, are converted into a variety of uſes; and what we would imagine worth nothing, ſupplies Employment and Subſiſtence to a multitude of Families. Such in this ſenſe, is the Worth of Manufacture!

As the Value of Commodities are wonderfully augmented by the Labour with which they are procured, and the expenſive Carriage with which they are attended, ſo Manufactures are followed with both theſe Benefits, but more eſpecially the former, in an infinitely greater degree. For

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in regard to Labour, Commodities general ſpeaking employ but one Set of People; whereas Manufactures employ many, and thereby raiſe the Profits of Workmen to an amazing Height. As for inſtance, in Wool when ſpun into Yarn, and that Yarn manufactured into the fineſt kind of Stockings, of which ſome have been knit at *Aberdeen*, that have been ſold for three Guineas a Pair, and have been ſo fine as to draw through a Gold Ring, whereby the Value of the Materials has been raiſed in the Proportion of one to one hundred and thirty; in like manner, Flax when manufactured firſt into Thread, and thence into Cambricks and Lace, is raiſed to above two hundred times its Value; and the ſame may be ſaid of Iron refined into Steel, and that wrought into Watch Springs, and other Things of great Price. Of late Years, even the Caſt Iron in the Backs of Stoves has been exalted to a moſt immenſe Price in compariſon of the original Coſt of the Materials; and if we remember, that all this Coſt is in a great meaſure the Reward of Induſtry, and provides for the Subſiſtence of numberleſs Families, compoſed of many Individuals, all provided for, and in their ſeveral Degrees well provided for too, we ſhall find, that Manufacture is a moſt noble Inſtrument towards procuring the Welfare and Happineſs of a People, and in that light deſerves the ſtricteſt Attention, the greateſt Encouragement, and the utmoſt Indulgence from every well-regulated Government.

But to put this matter at once into a full light, and in as narrow a Compaſs as poſſible, let us take a ſhort View of the Woollen Manufactury, as it is managed by us. In the firſt place the Commodities from whence it ariſes, are principally two, Wool and Oil. The latter is chiefly furniſhed to us from abroad, from *Spain* and *Portugal* in ſmall Quantities, but the groſs of it from the Kingdom of *Naples*; the former likewiſe comes from different Parts, as from *Ireland*, *Spain*, *Barbary* and *Turkey*, but the main Article is *Engliſh* Wool, which is the Subſtance of the whole Manufacture, and therefore upon this we ſhall chiefly inſiſt, and trace it as far as our Intelligence reaches, from the Back of the Sheep to the Merchant's Warehouſe, which we ſhall find a moſt extenſive Circle.

The Wool is taken from the Sheep's Back by the Sheerer while the Creature is living, or by the Fellmonger from the Skin after it is dead. It is then ſold to the Dealer or Woolſtapler, a very ſubſtantial kind of Tradeſman, of which there are many reſide in *Southwark*, and Numbers

in different Counties of *England*, ſuch as *Dorſetſhire*, *Norfolk*, *Lincolnſhire*, and *Leiceſterſhire*. Wool is alſo carried ſometimes to great Fairs and Markets, ſuch as *Sturbitch* Fair particularly, and ſometimes without going into any Dealer's Hands, it paſſes at once from the Farmer, or the Fellmonger, to the Manufacturer. The firſt Operations it goes through with him are Combing and Carding. The Combers are a particular Set of People, and a diſtinct Trade; but as for Carding, it is a Taſk performed by ſuch as are hired by the Clothier for that purpoſe. After Combing and Carding comes Spinning, and this again is a particular Trade, inſomuch, that whole Counties are employed therein, the Inhabitans of which hardly ever ſee any raw Wool, and as ſeldom any that is manufactured.

To conceive this clearly, we muſt inform the Reader, that the Weavers of *Norwich*, beſides employing moſt of the Inhabitants of the populous Counties of *Norfolk* and *Suffolk*, ſend their Wool to be ſpun into *Cambridgeſhire*, *Bedfordſhire*, and *Hertfordſhire*, and as to the Wool itſelf, it comes from *Lincolnſhire*. On the other hand, the Weavers in *Spital-fields*, beſides the three Counties laſt mentioned, ſend a great Part of their Wool by Land Carriage one hundred and fifty Miles to *Weſtmoreland*, and when it is ſpun, receive it back the ſame way. In the County of *Eſſex*, they are chiefly ſupplied with Wool from *London* and *Southwark*, and as it is manufactured in the great Towns, ſo it is ſpun in the Villages; and to this Trade probably we ought to impute the great Number of People, which were it not for the Advantages derived from the making Bays and Perpetuanas, would hardly inhabit there, becauſe they would ſcarce find a Subſiſtence. The *Weſtern* Parts of *England* make ſtill a ſuperior Figure in this way, for the Plains in *Dorſetſhire*, *Wiltſhire*, *Glouceſterſhire*, *Somerſetſhire*, and *Hampſhire*, are in a manner covered with Sheep, inſomuch, that the People of *Dorcheſter* affirm, that there are always ſix hundred thouſand feeding within ſix Miles of that Town, yet the Manufacture demands more Wool than all theſe Sheep can furniſh, inſomuch that they commonly take thirty thouſand Packs from *Ireland*, and very near as much Yarn ready ſpun; tho' it has been computed, that in thoſe five Counties, there are above one hundred thouſaad Families maintained by ſpinning, reckoning ſix Hands to a Family, excluſive of a Weaver in each, and in many two or three.

In the middle Part of *England*, that is, in the three Counties of *Leiceſter*, *Northampton* and *Warwick*, the Wool, as well

well as that in *Lincolnſhire*, ſupplies the *London* Conſumption at the Rate as is generally ſuppoſed of five hundred Packs a Week, and the poor People in all theſe Counties are employed in Spinning; nor are there, as we obſerved before, People enough to convert all this Wool into Yarn. But after all, there is yet another conſiderable Branch of this Manufacture in the North, whither Part of the *Leiceſterſhire* Wool is carried, which with the Wool of the Eaſt-Riding of *Yorkſhire*, and that from *Durham*, more eſpecially the Banks of the River *Tees*, are accounted the fine Wools of thoſe Parts; and the laſt-mentioned Sheep are the very largeſt in this Kingdom. The coarſer Wools from *Scotland*, *Lancaſhire*, *Weſtmoreland*, and *Cumberland*, have their Uſes alſo; and though they do not enter into the Compoſition of fine Cloths, yet they make many other Things that produce a good Price, and find always a conſtant and Ready-money Market. Thus it appears how truly the Woollen Manufacture is eſteemed the great Staple of *England*; and this will be ſtill more apparent from the following Account of the particular Species of Woollen Manufactures, and the Places where they are chiefly made.

Broad Cloths mixed or medley, are the Manufacture of *Wiltſhire*, *Somerſetſhire*, *Worceſterſhire*, *Kent*, *Surry*, and *Devonſhire*. Plain white Cloths for Dying, are made at *Saliſbury*, *Shrewſbury*, *Worceſter*, *Cirenceſter*, and all over *Glouceſterſhire*; narrow Woollen Cloths mixed, commonly called Dozens, are made at *Leeds*, *Wakefield*, *Bradfield*, and *Huthersfield*, in the Weſt-Riding of *Yorkſhire*. Druggets, Duroys, *&c.* are made in the Counties of *Berks*, *Somerſet*, an *Wilts*; Serge and light Stuffs at *Norwich*, *Norfolk*, *Spital-fields*, *Briſtol*, and *Darlington*. Rugs, Chair-coverings, Penniſtons, half Thicks, Duffels, *&c.* are the Manufacture of *Cumberland*, *Lancaſhire*, and *Weſtmoreland*. Blankets are made in *Oxfordſhire*, and *Wales*; Flannels in *Saliſbury*, *Shrewſbury*, in many Places of *Wales*, of which *Wrexham* is the great Market. Tammies, and a variety of other Things at *Coventry*. Vaſt Variety of leſſer Wares at *Mancheſter*. Stockings of all Sorts are wove in *Leiceſterſhire*, *Derbyſhire*, *Warwickſhire*, *Nottinghamſhire*, and *Spital-fields*. The beſt knit Hoſe come from *Glouceſterſhire*, *Yorkſhire*, *Worceſterſhire*, *Somerſetſhire*, and *Wales*; and the very beſt from *Northampton* and *Aberdeen*. Kerſeys, or coarſe Cloths, are made at *Bradford*, *Rochdale*, *Halifax* in *Yorkſhire*, and at *Guilford*, and of a particular Kind in *Devonſhire*, and *Somerſetſhire*; Shalloons in *Northamptonſhire*, *Berkſhire*, *Somerſetſhire*,

Wiltſhire, *Hampſhire*, and the Weſt-Riding of *Yorkſhire*. Fingrums at *Edinburgh* and *Stirling*. Coarſe Stuffs at *Muſleborough*. Bays of all kinds at *Colcheſter*, *Bocking*, *Braintree*, *Witham*, and *Coggeſhall*, and in ſhort all over *Eſſex*, as alſo at *Mancheſter*. Says were formerly the great Manufacture of *Colcheſter*, but now they are made at *Sudbury* in *Suffolk*. Perpetuanas or long Ells at *Tiverton*, and all over *Devonſhire*, at *Sudbury* in *Suffolk*, and at *Colcheſter* in *Eſſex*. Frizes are made at *Worceſter*, and in *Ireland*; fine Plaids at *Coventry*, but chiefly in *Scotland*; Linſey-woolſey Stuffs for Hangings and Printing at *Kidderminſter*; Seamen's high-crown Caps, called *Monmouth* Caps, at *Bewdley* in *Worceſterſhire*.

It would require a large Volume to run through even our capital Manufactures in the ſame manner; and therefore we will content ourſelves with a very brief Account of the Uſes to which our Metals are converted, without pretending to aſſign the Places where theſe Manufactures are carried on. Iron is caſt into Cannon and ſmall Arms, Bombs, and Hand-Granades, Shells, Chimney-Backs, Boyling-Pots, Pipes for Water, Furnaces of various kinds, Iron Plates, Bars and Retorts. Forged Iron is wrought into *Sheffield* and *Birmingham* Ware, ſuch as edged Tools, Knives and Sciſſars, Cutlery Ware and Toys, Nails, Hinges, Hooks, Spikes, Locks and Keys of many Sorts, for great Grates, Houſe-Doors, Horſe-Locks, Field-Locks, Padlocks, Fetters, Gun-Locks, Razors, Surgeons Inſtruments, Clothiers-Sheers, and ſmaller Sheers. Hammer'd Iron is wrought into Chains for Horſe-Harneſs, and for mooring of Ships Anchors, Crows, and Tiers for Wheels, Iron Balluſters, Rails, Paliſades, Gratings, &c. Bar-Iron of various Kinds, &c. Mill'd Iron is converted into Iron Hoops, and all kinds of ſlit and flatted Work, as well as Wire of all Sorts.

Braſs and Copper when caſt, make Statues, or Images. That Sort commonly called Battery, ſerves for Pots, Saucepans, Kettles, and ſeems to be ſo called, becauſe it is afterwards hammered. Black Latten is Metal prepared for Clock work, Jacks, Engines. In Foundery-Ware again, it ſerves for Braſs Cannon, and Mortars, &c. Bells of all kinds, Pipes for Engines, Wheel and Mill-work, Braſs Buttons, a vaſt Variety of Toys, and for the Uſe of Coachmakers and Upholſterers. When wrought and hammered, theſe Metals are employed in Clock-work, Jack-work, Watch and Mill-work, poliſhed Plates, and Toys innumerable.

Lead is caſt into Pigs and Sows for Exportation. Sheet Lead, whether milled or caſt, ſerves for covering of Buildings,

ings, Sheathing of Ships, Lining of Coffins, for Ciſterns, Baſons, Fountains, and a thouſand other Uſes. Lead is alſo caſt into Statues and Images, and into Pipes for conveying Water; as alſo into Bullets and ſmall Shot. Moulds are made of it for all kind of Earthen Ware, and the Litharge of Lead ſerves to glaze them. When calcin'd it comes into the Painter's Hands, who uſes it for Colours; and beſides all theſe Uſes it ſerves to mix with other Metals by way of Allay. It may not be amiſs to remark, that we have prodigious Quantities of this Metal, more I believe it may be truly ſaid within the Compaſs of this Iſland, than any other Country in *Europe*; and conſidering the vaſt Demand for it, and for every thing that is made of it, we may fairly affirm, that it is no inconſiderable Source of our Riches; and at the ſame time it muſt be an additional Pleaſure to reflect that it is a growing and conſtant Treaſure, which notwithſtanding the prodigious Quantities that are annually employed, there is no Danger that we ſhould ever exhauſt our Stores.

Tin is caſt into Blocks for Exportation, converted into Pewter, and wrought into Diſhes, Plates, Pots, Spoons, and a prodigious Number of ſmall Things which we need not enumerate. It is alſo uſed for making Moulds, and as a Solder for joining and cementing other Metals; and of this too, both as a Commodity and a Manufacture, we are poſſeſſed though not of a Monopoly, yet of a very large, ſettled, and conſtant Trade, out of which there is no great Danger of our being beaten by any other Nation; which however ought to be no Reaſon for our being leſs attentive to, or leſs aſſiduous about this Trade than our Anceſtors were, who conſidered it as one of the chief Fountains of their Riches, though the principal Advantages they received aroſe from it as a Commodity; whereas we are equally Gainers by its being a valuable Commodity, and the Material of a beneficial Manufacture. One Inſtance more, and we will have done; the Glaſs Manufacture in this Country is, or at leaſt was, a very great one; it ſtands naturally divided into three different Sorts. The firſt is what we call fine Flint Glaſs, of which are made all Sorts of Drinking-Glaſſes, Cruets, Salt-ſellers, Muggs, Salvers, and Apothecaries and Chymiſts Phials, Retorts, *&c.* fine Bottles for Caſes, Decanters, Beakers, Plates and Diſhes, *&c.* Sconces, Branches and ſmall Ware, Toys, *&c.* as alſo Watch-Glaſſes, Tubes, Spectacle-Glaſſes, and thoſe for Microſcopes, Teleſcopes, *&c.* Theſe are, or at leaſt were made at *London*, *Briſtol*, *Stourbridge*, *Nottingham*, *Sheffield*, and *Newcaſtle*. The ſecond Sort is Plate-Glaſs, of which are

made Looking-Glaſſes, Coach-Glaſſes, Cabinet-Glaſſes; it is uſed in framing large Pictures, and ſometimes, tho' rarely, in Saſhes. This was only made at *London*. Crown-Glaſs, formerly called *Normandy* Glaſs, for Windows, Saſhes, Pictures, *&c.* ordinary Glaſs for ſmall Panes, commonly called Quarrels, *&c.* at *Briſtol*, *Stourbridge*, *Newcaſtle*, and *London*. The third Sort of Glaſs is from its Colour ſtiled Green-Glaſs, tho' the leaſt valuable in its Nature, yet from the Variety of its Uſes and vaſt Conſumption, of no leſs Conſequence than the two former Sorts. This was divided into ſeveral Branches, ſuch as Bottles made at *London*, and at *Leith* in *Scotland*, Phials at *Briſtol*, Retorts at *Glouceſter*, Cucumber and Melon-Glaſſes at *Stourbridge* and *Newcaſtle*.

To be convinced of the prodigious Benefits reſulting from every kind of Manufacture, we need only make a Journey into any of the Counties where they flouriſh, and look about us; where we ſhall obſerve the Market-Towns thick, and yet large, well built, populous and rich, and Villages within a Mile or two of each other; as for Inſtance, for twenty Miles round *Exeter* in *Devonſhire*; in the Neighbourhood of the manufacturing City of *Norwich* in *Norfolk*, where the Stuff-Weaving is carried on; in *Eſſex*, where the Bays-Trade flouriſhes; in *Wiltſhire*, from *Warminſter* to *Malmſbury*, in the Counties of *Glouceſter* and *Worceſter*, where the white Cloathing Trade is the grand Manufacture. But that we may not ſuppoſe, as one would imagine by their Diſcourſe many People do, that the Woollen Manufactury alone produces theſe Miracles; let us conſider the Counties of *Warwick* and *Stafford*, and more eſpecially round the Town of *Birmingham*, where the Hard-Ware and Cutlery Manufacturies flouriſh. Or let us inquire into the State of *Yorkſhire* and *Lancaſhire*, and the Face of things about *Mancheſter*, *Sheffield*, *Leeds*, &c. where there is a mix'd Variety of ſeveral Manufactures, ſuch as Cotton, Iron, narrow Cloths, Kerſeys, *&c.* carried on; we ſhall ſoon ſee that Induſtry in any kind, will produce every where the ſame Effects; and that if Men are but buſy and careful, it matters not much what they are about, or what kind of Trade they purſue, a competent Reward for their Labour, conſtant Employment, and a comfortable Subſiſtence are never wanting; and what is in itſelf alſo of very great Conſequence, the Spirit of Induſtry is ſure to prevail; Example governs all Ranks, and good Habits, if I may be allowed the Expreſſion, are contagious as well as bad. Let but one or two Towns

thrive

thrive by any Manufacture, in the Space of fifty Years you find it ſpread through the whole Country.

But for a ſingle Inſtance, more narrowly examined, which ſtrikes ſome Minds more than any of theſe extenſive Views. There is the Town of *Halifax*, which has nothing extraordinary to boaſt in point of Situation, and for the Country round it, it is far enough frum being a Paradiſe. The Place indeed might boaſt of Antiquity; for we learn from Records, that about three hundred Years ago, there were no leſs than thirty Houſes in it, and the Number of People were ſomewhat under two hundred; thoſe in the Pariſh, which by the way is a very large one, near twelve Miles in Circumference, were then computed at ſeven hundred Souls; but from the eſtabliſhing of the Woollen Manufactury, the Vicarage of *Halifax*, for ſuch it ſtill remains, is the moſt conſiderable in this Iſland, and perhaps it would not be eaſy to match it Abroad. It is not eaſy to know what to call it, whether Village, Borough, Town, or City; for the Houſes are ſpread every where almoſt over the whole Pariſh, and yet every Houſe ſeems to depend ſolely upon itſelf, for each has its Tenter-ground with Cloth, Shalloon, or Kerſey in it; all the Men are buſy either at their Looms, in their Grounds, or at the Dye-fats. None of the Women are idle, nor even the Girls and Boys; for Carding, Spinning, and Winding, employs them all. It has been computed that no leſs than one hundred thouſand Pieces of Shalloon have for ſome time paſt, been made here every Year. As to the Number of People, here are threeſcore thouſand Communicants in this Pariſh, for whoſe Conveniency there are ſixteen Chapels of Eaſe, and about fifteen Meeting-houſes. Such are the Effects of that Induſtry which is ſupported by Commerce; ſuch is the Difference between the preſent and the paſt Times; ſuch the Alteration that has been made by that Spirit which we endeavour to celebrate!

Yet as I ſaid before, *Halifax* is but a ſingle Inſtance, and it would be a very eaſy Matter to ſend the Reader to at leaſt half a Score other Places upon the ſame Errand. We will try what can be done in a Breath; there is *Mancheſter*, *Warrington*, *Macclesfield*, *Leeds*, *Wakefield*, *Sheffield*, *Birmingham*, *Froome*, *Taunton*, and *Tiverton*, ſeveral of which are no Corporations; but the greateſt Man in point of Authority is a Conſtable, and yet in reſpect to Inhabitants, they may ſeverally vie with the City of *York* for Number, and at the ſame time it may be truly ſaid, that they are every Day augmenting; whereas I am afraid that City is rather declin-

ing. This is rather more than ſufficient to ſatisfy an opening Mind, as to the Truth of all that we have advanced upon this curious and copious Subject, to clear his Breaſt from Prejudices, and to fix in his Memory a juſt Reſpect for Trade, by convincing him that it is the only effectual Means of baniſhing Idleneſs, Indigence, and ill Humours; for if Men are buſy, they can never be in Want; and if they have any Genius or Parts, they muſt acquire an independent Settlement; now Property is the Mother of Peace, and thoſe only grumble, mutiny, and rebel, that have not wherewithal to live; ſuch as have, know that it is their Intereſt to be quiet.

CHAP. VI.

Of the Britiſh *Fiſheries, as well that of* Newfoundland, *as thoſe on the Eaſt and Weſt Coaſts of* England, *and of* Scotland; *with ſome Hints alſo of the Branches that have been loſt, and of the Improvements which might be admitted, in thoſe we ſtill poſſeſs.*

THE Advantages which attend a Fiſhery large in Extent, and well eſtabliſhed, are not only many and great, but at the ſame time very obvious and apparent. We may conſider the Sea as a Mine, out of which the Fiſh are taken with very little Expence, and even that Expence is advantageous, ſince it promotes ſeveral Manufactures, and goes entirely amongſt our own People. The Fiſh when taken, are a Commodity of great Value; for either they become Part of our Home Conſumption, and by that means ſave us a great deal of Money; or otherwiſe they are exported, and in that caſe they are a kind of hidden Treaſure; for what coſts us nothing but Labour, is either diſpoſed of for Money, or for Commodities of foreign Growth, which muſt otherwiſe be paid for in Money. It is indeed true, that the *Dutch* have carried this Point much farther than we; though I think there is good Reaſon to doubt the Truth of ſome of the prodigious Calculations which ſeveral of our Countrymen have publiſhed upon this Subject; notwithſtanding the Penſionary *John de Witt* has thought fit to inſert them in his celebrated Work, the End of which conſidered, he cannot be blamed for giving them place, even ſuppoſing that he did not believe them, which I think is more than probable, from the manner in which

which he ſpeaks of them. His Buſineſs was to excite the Care of his Countrymen in regard to the Fiſhery; and therefore it is no Wonder, that he was willing to allow it all the Advantages poſſible.

But whatever Advantages the *Dutch* may have over us in this reſpect, it does not at all follow from thence, that either we have entirely neglected our Fiſheries, or that our Acquiſitions from them are inconſiderable. Some Writers, indeed, carried away by the wonderful Reports above-mentioned, have given ſtrongly into this Error, and repreſented us not only as very careleſs and deficient, but even as ſtupid and indolent to the laſt degree in an Affair of ſuch Conſequence. According to them, we ſit ſtill with our Arms before us, notwithſtanding we ſee, before our Eyes, the *Dutch* making more of the Fiſhery in our Seas, than the *Spaniards* of their *Weſt-Indies*. On the other hand, there are ſome, who in the Accounts they give us of the *Scotch* Fiſheries, ſpeak in ſuch a manner, as might tempt us to believe, that inſtead of the *Dutch* exceeding us, we very much exceed them in this very Article, which, however, is certainly falſe, but not more ſo, than the former Suppoſition, and therefore both are to be guarded againſt. The Truth of the Matter is, and indeed *de Witt* acknowledges it, Neceſſity put the *Dutch* upon their Fiſheries, and the vaſt Gain they brought in, ſufficiently encouraged them to purſue, as they have done, Methods entirely ſuitable to their Situation, Genius, and way of Living, and at the ſame time lucrative in the higheſt degree.

The middle Way therefore in this, as in moſt other Things of a like Nature, is the beſt; and without running down our Countrymen in an extravagant manner, or crying up their Induſtry beyond what it deſerves, we will endeavour to ſtate Things fairly, and agreeable to Truth. The Herring Fiſhery in *Scotland* is certainly very conſiderable; ſome have computed it in the whole, that is, on the Weſt as well as on the Eaſt Side, at ſixty thouſand Laſts one with another; but I am afraid there is an Error in this, becauſe, from my own Acquaintance with the Subject under our Conſideration, I have very good reaſon to believe that the *Dutch* themſelves think it a very good Year, when they are able to make ſixty thouſand Laſts. It is however highly poſſible, that the Miſtake aroſe by ſome curious Perſon's inquiring into this Matter, who was not acquainted with the Terms of Art, and might very poſſibly miſtake Barrels for Laſts. A Barrel of Herrings is the tenth Part of a Laſt; and according

cording to the beſt Accounts that can be had of this Fiſhery, I believe that ſix thouſand Laſts, or if a larger Number pleaſes the Ear better, ſixty thouſand Barrels, may be a pretty juſt Calculation of the annual Product of the Herring Fiſhery in *North Britain*. And a very conſiderable thing this is, though nothing in compariſon of the *Britiſh* Fiſhery, eſtabliſhed by Act of Parliament, ſince this Work was firſt publiſhed.

The Herring Fiſhery in *England*, is chiefly carried on at *Yarmouth* and *Leoſtoff*; but this is for a very different Purpoſe, the Herring being dry cured, and becoming what we call Red Herring; but however it is very conſiderable, and amounts in the beſt Years to four thouſand Laſts of Herrings, and in ſome to five thouſand, which are exported to *Holland*, *France*, *Spain*, and *Italy*. As for the remaining Part of the Herring Fiſhery at the Mouth of the River *Thames*, it ſupplies, as I conceive, the *London* Market and Home Conſumption; neither is it in this reſpect contemptible, though in a manner nothing when compared to the other Fiſheries before mentioned.

We muſt next take notice of the Weſt Country Fiſhery on the Coaſts of *Dorſetſhire* and *Devonſhire*, and ſometimes alſo on thoſe of *Cornwall*, for what are called Pilchards. There are many People who conſider theſe as a kind of Herring, and perhaps they are not miſtaken; but if they are ſo, they are a particular kind of Herrings, and are very much eſteemed Abroad, ſo that there is hardly any Commodity comes to a better Market, more eſpecially in *Spain*, where the People keep many Faſts, and are remarkably fond of Fiſh that are well cured, and of a high Flavour, as the Pilchard muſt be allowed to be. It is thought that one Year with another, the Exportation of Pilchards amounts to a thouſand Laſts, or ten thouſand Barrels, and I believe this Computation is rather below than beyond the Truth.

At the ſame Seaſon of the Year that this Pilchard Fiſhing is carried on in the *Britiſh* Channel, there is a Herring Fiſhery of about the ſame Value, which employs the People on the oppoſite Coaſt, I mean in the *Briſtol* Channel about *Biddiford* and *Barnſtaple*. Thus we have entirely ſurrounded *Britain*, and examined the Nature and Value of this kind of Fiſhery on all Sides, which, upon the whole, cannot be fairly carried much higher than fifteen thouſand Laſts, unleſs we take in the *Iriſh* Fiſhery, in which the Merchants about *Belfaſt* and *Londonderry* are ſaid to have a conſiderable Intereſt; and the *Mancks* Fiſhery, or Herring Fiſhery on the Coaſt of the

the Iſle of *Man*, which has been ſometimes of Conſequence, and at others of none at all; but when they are all modeſtly computed, and added together, there ſeems to be no juſt Reaſon to think, that they can much exceed, if indeed they come up to twenty thouſand Laſts a Year; neither, all Things conſidered, is this any diſparaging Account of our old Herring and Pilchard Fiſhery.

We are next to conſider what is called the White Fiſhery; and in the firſt place it is to be obſerved, we take conſiderable Quantities of Cod in the North Seas, and from thence it is called North Sea Cod, of which large Quantities are ſold to the Fiſhmongers here in *London*; and it is vended alſo in moſt of our Sea Ports, ſerving for Proviſions in ſhort Voyages, as well as for Conſumption on Shore; ſo that though this Fiſhery does not bring us any great Sums of Money, yet it ſaves much, and is conſequently in this light very beneficial. There is a Fiſhery of the ſame kind in *North Britain*, chiefly about *Dunbar*, and it ſerves to ſubſiſt a good Number of People, and in other reſpects turns to the ſame account as the former. But the *North Britiſh* Fiſhery on the Weſt Side, and among the *Orkney* Iſlands, is a Thing of greater Conſequence, into which, of late Years, the *Iriſh* are fallen, and before the War with *Spain*, they carried on a very conſiderable Trade thither; but neither is this ſo advantageous as it might be, or at leaſt was not before the Legiſlature thought fit to erect the Company before mentioned. But after all, the principal White Fiſhery, is that for Cod in *Newfoundland*, and the ſame all along the North Coaſt of *New England*, which is of prodigious Importance. It employs many thouſand People at Sea and on Shore, it increaſes our Shipping, it procures a large Sale for our Manufactures, and beſides all this, the Produce of it is very large, not leſs ſome Years ago, when a very exact Computation was made of it, than two hundred and thirty thouſand Quintals, which were diſpoſed of in *Spain* and *Portugal*, as alſo in *Italy*, more eſpecially at *Leghorn*, and at the *Canaries*, *Madeira*, and *Cape de Verd* Iſlands, not to mention what is conſumed in our own Colonies.

There are beſides theſe, ſeveral other Fiſheries that deſerve Notice; ſuch as the Whale Fiſhery on the Coaſt of *Long* Iſland, *Rhode* Iſland, and *New-York*, but this is not a little incertain, and the taking of what are called *Sperma Ceti* Whales, among the Iſlands of *Bermudas*, much more ſo. We were once entirely poſſeſſed of the *Greenland* Whale

Fiſhery, and for many Years had the moſt conſiderable Share in it, 'till gradually beat out of it by the *Dutch*, from whom we are now in a fair Way of recovering it. Our Salmon Fiſhery is carried on in *North Britain* at *Aberdeen*, in *South Britain* at *Berwick*, and in ſeveral Places in *Ireland*. There is alſo a conſiderable Fiſhery carried on in the Rivers in the Iſland of *Newfoundland*, which was ſaid to be increaſing before the late War broke out, and one would imagine muſt by this time be grown very conſiderable. Upon the whole, it may be truly affirmed, that if the *Dutch* go much beyond us in the Herring Fiſhery, we alſo very much exceed them in the White Fiſhery; in the *Greenland* they had almoſt all, and it is ſtill nearly the Caſe with reſpect to the *Iceland* Fiſhery, which was alſo once in our Hands, if we had known how to keep it. I believe it may be true, that while we loſe on one Side, we get on another; but this is no reaſon why we ſhould neglect the regaining of loſt Trades, and more eſpecially Fiſheries; and thoſe Fiſheries particularly which lie neareſt our own Coaſts, for theſe would infallibly furniſh us with a conſtant Supply of experienced, active, and healthy Sailors, that might upon any Emergency be employed in manning our Navy, and by reaſonable Encouragements, might be brought to become ſo uſeful in that reſpect, as to render needleſs the oppreſſive and illegal Practice of taking Men by Force.

Beſides, when it is remembered, that taking and curing Fiſh is ſo much a ſhorter Thing than digging for and melting Ore, and at the ſame time in point of Nets, Veſſels, People, Salt, and Caſks, not at all leſs expenſive; ſo that we come ſooner to Market, and yet find as good a Price for this Commodity, as for any Metal or Mineral we have; it ought to be conſidered as a great and conſtant Source of Riches, and which is ſtill more to our Purpoſe, an inexhauſtible Source; for the more we have, the more we are like to have; by which I mean, that there is no Danger of extending our Fiſheries too far. The greater they grow, the better our Fiſh will be cured, the more People and the more Veſſels will be employed, not in the catching, but in the exporting them; and at the ſame time this would add to our naval Force, which I mention again, as having a particular Connection with this Subject; for without a naval Force, ſuch an extenſive Fiſhery as we might have, could not be protected; whereas the gradual Increaſe of this natural Advantage, inſeparably annexed to our Situation as an Iſland, would very ſoon increaſe that Force to ſuch a degree, as might withſtand all *Europe*; ſo that the

Project

Project formed in the Reign of King *Charles* I. of eſtabliſhing a Herring-Fiſhery on the Coaſt of *Scotland*, out of the Profits of which, a conſtant Squadron of Men of War was to be maintained, does not appear to have been ill founded; but we ſtand in need of no ſuch Projects now; for if our Fiſhery be improved, which is in our Power, and the Exportation increaſed, which would follow of courſe, this would augment the Balance of Trade, and the better enable the Nation to keep in conſtant Employment an invincible Navy, a Thing equally ſuitable to her Intereſt, and to her Glory.

CHAP. VII.

Of our Plantations, the Nature and Benefit of them explained; their great Importance to this Country demonſtrated; the vaſt Change they have made in our Affairs ſtated and accounted for; and all Objections againſt them anſwered.

THere is hardly any Subject that better deſerves a young Man's Attention than this, whether we conſider the Importance thereof in itſelf, and the Advantages that ariſe from thoroughly underſtanding it, or the Dangers that attend falling into thoſe vulgar Errors with which Multitudes are infected, and are commonly labouring by their Diſcourſe to infect others. When we hear ſuch as have either reſided long in our Colonies, or have conſiderable Intereſts in them, extolling the Benefits derived from them to *Great Britain*, and inſiſting that a reciprocal Regard is conſequently due, we muſt be quite at a loſs in our Judgments, in caſe we have no previous Conception of the Matters on which they inſiſt; and on the other hand, when we ſee not only the Populace, but even People of better Figure expreſſing a Coldneſs, and want of Kindneſs, if not Diſdain and Contempt for their Countrymen in thoſe Parts, as if their Intereſts were as far removed from them as their Perſons, we are in danger of being carried away by the Stream, and falling imperceptibly into a Miſtake, out of which it is a great Chance if ever we recover. I had Reaſon therefore to ſay, that

that it very much imports a young Man to acquire right Notions upon this Head early, and theſe too eſtabliſh'd upon ſound and ſolid Principles, that he may ſtand ſecure, and not have his Opinion ſhaken by any witty Declamations, or ſophiſtical Arguments that are ſometimes uſed to the Diſcredit of all, but very frequently employed to enſnare and miſlead us with reſpect to particular Plantations.

It would be no very difficult Matter to ſhew from Reaſon alone, that Plantations are highly beneficial, and that nothing can contribute more to the Riches and Welfare of any Country, or at leaſt of any trading Country, than fixing Settlements in foreign Parts, and more eſpecially in ſuch a Country as *America*, where vaſt Regions may be obtained merely by eſtabliſhing Colonies in them. But there is no need of doing this, ſince Experience affords us a ſhorter and eaſier Method. There is no Inſtance of any great trading Nation ancient or modern, that ever had this in their Power and neglected it; from whence we may infer, that what has been always and every where judged reaſonable, muſt really be ſo. Beſides, let us conſider what rendered the *Portugueſe* heretofore rich and powerful, and what in ſome meaſure keeps them ſo ſtill, is it not their Plantations? If we aſked the ſame Queſtion with regard to *Spain*, we muſt receive the ſame Anſwer; and yet there it nothing more certain, than that both theſe Nations are under vaſt Inconveniencies with reſpect to their Plantations; for they draw nothing from them but in Satisfaction for Commodities and Manufactures, and yet the far greateſt Part, indeed almoſt all theſe Commodities and Manufactures they purchaſe themſelves from other Nations; notwithſtanding which prodigious Obſtacle, it is apparent, that their Plantations are not only the great and conſtant, but almoſt the ſole Source of their Riches. This alone to a Man of Senſe and Reflection, will afford a full Conviction of the Truth of what has been advanced, as to the Benefit of Plantations in general.

There is no ſhorter Method with reſpect to our own in particular, than to conſider one that has ſome ſtaple Commodity, which may ſerve as a Model for the reſt; and I know of none that can anſwer this Purpoſe ſo well as *Virginia*, one of the oldeſt, beſt cultivated, and moſt populous of our Colonies upon the Continent. It is computed that the Number of Souls indiſcriminately may amount in *Virginia* to about half a Million, and of theſe about one hundred and twenty thouſand Men, Women, and Children, may be white, which ſhews this Colony is in itſelf a thing of prodigious Importance;

portance; the next thing is to find out what Advantages this Country derives from ſuch a Number of its Subjects dwelling there. In the firſt place, it muſt be obſerved, that as the Value of Labour differs in ſeveral Parts of this Kingdom, ſo the Labour of a Man in moſt of the Plantations, is not only as advantageous to his native Country as if he worked at home, but much more ſo: I believe, upon a moderate Computation, we may reckon, that ſuch a Perſon contributes to the public Stock, by which I mean the Income and Wealth of the *Britiſh* Nation, four times as much. So that we may with reaſon reckon, that the white People in *Virginia*, one with another, produce twelve Pounds to this Nation; the reaſon of which will appear, when we conſider the Nature of their Commerce more particularly. But beſides this, the Negroes are of great Advantage to this Kingdom, though of infinitely leſs than white People would be, if they were employed in the ſame Work; for every one of theſe poor Creatures conſumes yearly two Hilling-hoes, two Weeding-hoes, two Grubbing-hoes, beſides Axes, Saws, Wimbles, Nails, and other Iron Tools and Materials. On the whole, there can be no ſort of Queſtion, becauſe it appears a plain Matter of Fact, that theſe People neceſſarily take off the Sum of one hundred and fifty thouſand Pounds in the Commodities of this Country.

I have before ſtated (agreeable to what able Authors have aſſerted upon this Subject) ſome general Principles of Computation, ſuch as that every Head in this Plantation may be reckoned worth twelve Pounds a Year to the Nation, which muſt ſeem prodigious; and indeed ſo does every thing grounded on Calculation, to ſuch as have not applied themſelves thereto; and ſo they always will, unleſs clearly explained, which is what I ſhall next attempt, as deſiring to inculcate uſeful Truths capable of influencing Men's Practice, and not write paradoxical Diſcourſes for my own and other People's Amuſement. In order to untie theſe Knots, we muſt conſider, that the People in this Colony of *Virginia* live exactly as we do, or rather more freely in that generous, open, hoſpitable, and conſequently expenſive Method that prevailed here in the laſt Age. But as they are ſupplied both with Neceſſaries and Conveniencies, with the Inſtruments of Labour, as well as the Means of Luxury, from *England*, it follows of courſe, that they muſt employ an infinite Number of Hands to provide theſe. For it is generally known, that theſe Demands muſt be ſupplied from thoſe Handicrafts and Mechanics that have moſt Hands in

their

their Service, ſuch as Weavers, Shoemakers, Hatters, Ironmongers, Turners, Joiners, Taylors, Cutlers, Smiths, Bakers, Brewers, Ropemakers, Hoſiers, and indeed all the Mechanics in *England*, their Manufactures being good Merchandize in *Virginia*. Theſe Commodities ſent thither, beſides Linen, Silks, *India* Goods, Wine, and other foreign Manufactures, are, Cloth, coarſe and fine Serges, Stuffs, Bays, Hats, and all Sorts of Haberdaſhers Ware; Hoes, Bills, Axes, Nails, Adzes, and other Iron Ware; Cloaths ready made, Knives, Biſket, Flour, Stockings, Shoes, Caps for Servants, and in ſhort, every thing that is made in *England*.

But if they employ theſe People, they muſt feed them likewiſe, and pay them their Wages, and not only them, but thoſe who take the Pains to go between the Planters and theſe Workmen; by which I mean the Agents, Merchants, or Factors, who tho' fewer in Number, yet have their Servants and Dependents, who from the Nature of their Employments, expect to be paid at a better Rate. Neither is this all; for when Things are made and brought to the Factor, they are never the nearer to the Planter in *Virginia*, but muſt be put into the Hands of a new Set of People, who are to be paid for the Carriage of them. So that now I think the moſt common Capacity may underſtand how the Labour of every Head in any Plantation, muſt be worth four times as much to the Community of his Mother-Country, as if he wrought at Home; for if he ſpends ſo much, and pays for what he has, both of which are undeniable, his Labour muſt produce ſo much. This ſhews the Benefit of Plantations to their Mother Country; and I hope there is no need to ſay, that this ſhews how much Regard and Reſpect is due from thoſe who manage the Affairs of the Mother-Country, to thoſe who live and labour for her in the Plantations. But becauſe it is not impoſſible we may err a little in the Meaſure of theſe Computations, and as I am far from deſiring to magnify theſe Advantages beyond the Truth, I ſhall lay it down as a Thing certainly to be depended upon, that every white Perſon in *Virginia*, one with another, is worth to this Nation ten Pounds, which will make the Value of the whole Plantation equal to an Annuity of 1,200,000*l.* to *Great Britain*.

This, I think, is already in a great meaſure demonſtrated; but as I am very ſenſible that many People will ſtill think, full Satisfaction is not given upon this Head, if they are not ſhewn how this, or at leaſt the greateſt Part of it is received, that we may not do Things by Halves, my next Care ſhall

be

be to remove this Difficulty likewiſe. In order to which we muſt conſider, that the Trade of this Colony, as well as that of *Maryland*, conſiſts almoſt entirely of Tobacco; for though the Country would produce ſeveral excellent Commodities fit for Trade, yet the Planters are ſo wholly bent on planting Tobacco, that they ſeem to have laid aſide all Thoughts of other Improvements. This Trade is brought to ſuch Perfection, that the *Virginia* Tobacco, eſpecially the ſweet-ſcented, which grows on *York* River, is reckoned the beſt in the World, and is what is generally vended in *England* for the Home Conſumption; the other Sorts, called *Oronoac*, and that of *Maryland*, are hotter in the Mouth, but they turn to as good account, being in demand in *Holland*, *Denmark*, *Sweden*, and *Germany*; it is therefore from this Commodity that we are to look for the beſt Part of that vaſt Sum which we have mentioned; and if we proceed diligently, and with Attention, I dare ſay we ſhall not ſearch in vain.

In time of Peace, I am perſuaded from ſeveral different Calculations, and from the Compariſon of the Informations I have ſought and received from ſuch as are, or ought to be, beſt acquainted with theſe Matters, that there is very little leſs than one hundred thouſand Hogſheads of Tobacco exported every Year from this Colony; that between three and four hundred Ships are employed in this Trade, and upwards of four thouſand Seamen. If we take things upon this foot, then the hundred thouſand Hogſheads of Tobacco will produce about the Sum at which I have fixed the Produce of this Colony to the Nation; but it may be ſaid, that if we take Tobacco for the Commodities and Manufactures that we ſend to *Virginia*, it differs very widely from an Annuity, and that inſtead of receiving 1,200,000 *l.* from the Perſons inhabiting this Plantation, we return them the moſt valuable Things we have, for 60,000,000 Pounds of Tobacco, which in itſelf is no Neceſſary of Life, and which we might very well do without. Thus we are all at Sea again, and it is my Buſineſs to ſet us once more on Shore; and if I am able to clear up this laſt Miſt, I hope there will for ever after be fair Weather for the Plantations.

The Solution of this Difficulty, ſo as not to leave the leaſt Shadow of Doubt, is very far from being a Thing extremely hard. Let us conſider that Tobacco was in uſe amongſt us long before it was cultivated, or at leaſt brought to Perfection, as appears by King *James* I. writing a Book againſt it; what we uſed came hither from *Brazil*, or from the *Spaniſh* Plantations, and was actually ſold here from four to ſeven-

teen Shillings a Pound. In caſe the Conſumption of Tobacco had become equal to what it is now, and we had been furniſhed with it by Foreigners, it would have carried off all our Commodities and Manufactures into the Barbarian; but ſuppoſe it had fallen to five Shillings a Pound only, this alone would have coſt us ſeven Millions either in Goods or in Money. I am very ſenſible that the Suppoſition is ill founded, and that Tobacco at five Shillings a Pound could not have grown into general Uſe, but into frequent and common Uſe it would have grown; and therefore it muſt have coſt us a great deal; whence it may be juſtly inferred, that our Home Conſumption is ſo much ſaved as the Value amounts to. Beſides this, we export annually forty thouſand Hogſheads, which produces us generally three hundred thouſand Pounds, the neat annual Income of one Commodity brought over from one of our Colonies. By this Sample let us judge of the reſt, for we cannot pretend to inſiſt upon any other in this Chapter.

All the other Colonies, Settlements, and Eſtabliſhments, which we have in different Parts of the World, contribute in like manner, but in different Proportions, to take off the Commodities and Manufactures, to employ the People, to increaſe the Shipping, and to extend the Trade of this Nation; and with this ſingular and valuable Advantage, that ſo long as we behave towards them with the Duty and Tenderneſs of a Parent, it is ſimply impoſſible that this Trade ſhould fail us, or that we ſhould loſe any Part of our Plantation Commerce, which is augmenting every Day. We have already enumerated the principal Commodities we have from thence, and ſhewn how they become, when wrought, to all Intents and Purpoſes our own Manufactures; ſo that the People in the Colonies, and their Slaves, where they have Slaves, undergo all the Drudgery and Labour, while we ſubſiſt our own People by the Manufacture of their Commodities, and draw from thence annually immenſe Profits, in which the People of the Plantations have no Share whatſoever. Such are the Prerogatives of a Mother-Country, and ſuch and ſo great the Benefits ſhe reaps by being ſo!

But it may poſſibly be inſinuated, that our Colonies drain us of a Multitude of People, that the Number of its Inhabitants is both the Strength and Riches of the Country; and that therefore whatever our Advantages in this way may be, it is not impoſſible that ſtill greater Advantages would have accrued, if theſe People had remained in *Britain*. But in this there lies a great Fallacy, for the Truth of the Matter is,

that

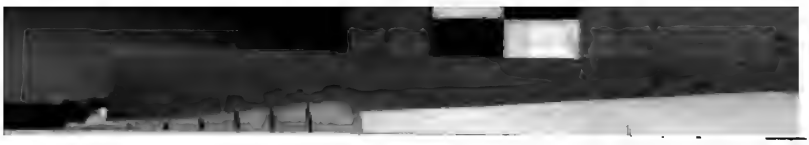
that in a Country like ours, where Trade and Manufactures flouriſh, Colonies are ſo far from being a Drain, that they really procure, or at leaſt are one principal Cauſe of augmenting our People; and though at firſt ſight this may look like a Paradox, yet when attentively conſidered, the Reaſons offered to ſupport it, will ſhew that it is a Truth. The People we have in the Plantations conſume more Goods of the Growth and Manufacture of this Iſland, than if they were at Home; this creates a Demand that heightens Wages, and this again attracts People from other Nations. Beſides our Plantations, generally ſpeaking, draw off in the Beginning only ſuch Sort of People, as either would not, or could not have ſtaid at Home; and therefore inſtead of loſing ſo many as went thither, we really kept them and their Poſterity by this very means. As to thoſe again that have gone over ſince, with a View to raiſe their Fortune by their Induſtry, we can no more be ſaid to loſe them, than if they had removed from one Part of this Iſland to the other; and the Fact, when truly ſtated, is, that by going to the Plantations, ſettling and improving there, they have done as much more Good than they could poſſibly have done by ſtaying at Home. Nor is this all, for as no ſuch Evil as this Drain of People is pretended to be, has been ever yet felt, ſo it is not at all likely that it ever will; for the very ſame Cauſes that excite a Diſpoſition to go and ſettle in the Colonies, muſt be ever productive of beneficial Conſequences to the Mother-Country, ſo long as this Relation between them continues, that is, ſo long as we continue a trading Country, and a maritime Power.

After having thus examined into the Reaſon of the thing, and ſhewn how great a Probability there is, that this ſingle Objection that has been, or can be made, has really no Foundation; let us next have recourſe to Experience, for if that concurs with our Reaſonings, we muſt certainly be in the right. In the firſt place let us aſk, *What was the Condition of this Country before we had any Plantations?* The Anſwer drawn from Hiſtory and Obſervation, muſt be to this effect: At the time Queen *Elizabeth* entered upon the Government, the Cuſtoms produced thirty-ſix thouſand Pounds a Year; at the Reſtoration, they were let to farm for four hundred thouſand Pounds, and produced conſiderably above double that Sum before the Revolution. The People of *London*, before we had any Plantations, and but very little Trade, were computed at about one hundred thouſand; at the Death of Queen *Elizabeth*, they were increaſed

to one hundred and fifty thouſand, and are now about ſix times that Number. In thoſe Days, we had not only our Naval Stores, but our Ships from our Neighbours. *Germany* furniſhed us with all Things made of Metal, even to Nails; Wine, Paper, Linen, and a thouſand other Things came from *France*. *Portugal* furniſhed us with Sugars; all the Produce of *America* was poured upon us from *Spain*; and the *Venetians* and *Genoeſe* retailed to us the Commodities of the *Eaſt-Indies* at their own Price. In ſhort, the legal Intereſt of Money was Twelve *per Cent.* and the common Price of our Land ten or twelve Years Purchaſe. We may add, that our Manufactures were few, and thoſe but indifferent, the Number of *Engliſh* Merchants very ſmall, and our Shipping much inferior to what now belong to the *Northern* Colonies. Theſe are plain and certain Facts: but as ſoon as we began to extend our Trade, and to make Settlements Abroad, the Face of our Affairs changed, the Inhabitants of the City of *London* were doubled by the End of the laſt Period, and are again doubled before the End of this; our Shipping increaſed in a ſtill greater Proportion; we coined within twenty Years after that Queen's Death, above five Millions at the *Tower*; in twenty Years after that, ſeven; and in the next twenty Years, eight; which are indubitable Proofs, that we had gained a prodigious Balance of Trade in our favour.

The next Point I ſhall conſider is, *What our Condition has been ſince?* And with reſpect to this I may boldly affirm, that it has altered for the better, almoſt to a Degree beyond Credibility or Computation. Our Manufactures are prodigiouſly increaſed, chiefly by the Demand for them in the Plantations, where they at leaſt take off one half, and furniſh us with many valuable Commodities for Exportation. Inſtead of taking the Quantities we were wont to do of Goods from other Nations, we actually export thoſe very Goods, and ſometimes to the very ſame Nations. Sugar, Rum, and Tobacco, are the Sources of private Wealth, and public Revenue, which would have been ſo many Drains that would have beggared us, had they not been raiſed in our Plantations. It is no longer in the Power of the *Ruſſians*, to make us pay what they pleaſe for Flax and Hemp. The *Swedes* cannot compel us to pay their own Price, and that too in ready Money, for Pitch and Tar, nor would it be in their Power to diſtreſs us, ſhould they attempt it, by raiſing the Price of Copper and Iron. Logwood is ſunk ſeventy-five *per Cent.* Indigo, and other Dying Materials, are in our Power,

and



and at moderate Prices. In ſhort, the Advantages are infinite that redound to us from our *American* Empire, where we have at leaſt a Million of *Britiſh* Subjects, and between fifteen hundred and two thouſand Sail of Ships conſtantly employed. Such have been the Fruits, ſuch is the Condition of our Plantations; and let any Man doubt of the Benefits reſulting from them to this Nation if he can; or when he reflects on the Numbers maintained here by their Induſtry, and even by their Luxury, let him deny, or envy their Wealth, if it is in his Power.

CHAP. VIII.

Of Navigation and Shipping, the great Advantages ariſing from them to all Nations in general, and to ours in particular; with ſome Obſervations on the natural Advantages of one Country over another in theſe reſpects.

THE Advantages of Shipping and Navigation have been more than once incidentally mentioned already; but it was neceſſary to beſtow an intire Chapter upon theſe Subjects, that the Importance of them might the more clearly appear. Navigation is a thing of ſuch Conſequence, that if it be proſecuted with Vigour and Application, it may prove the means of eſtabliſhing Commerce, and of ſuſtaining and preſerving it even where Commodities are wanting. I have already ſhewed that this is the great Advantage of the *Dutch*, but at the ſame time an Advantage attended with many Inſecurities. It does indeed Honour to the Abilities and Diligence of a People, that without deriving from Nature, either Materials for Building, or Naval Stores, ſhe exceeds all other Nations in Shipping; but at the ſame time there is no Difficulty in foreſeeing the Condition of that Nation muſt be liable to great Alterations; for whatever is violent and contrary to Nature, cannot laſt long; and thoſe are ſhallow Politicians, who fancy that Solidity and Strength ariſe from a ſudden and vigorous Growth, whereas States that become ſoon formidable, ſoon paſs the Prime of Life. It muſt however be allowed, that while Navigation can be kept up, there is no Danger that Trade will fail, or even decline. It is by this means, that the whole World is connected, and all the

different Parts of it correſpond one with another. It is this Correſpondence that introduces new Commodities, and ſets on foot freſh Manufactures. The *China* Ware of that famous Empire, and *Japan*, have certainly coſt *Europe* large Sums of Money, but theſe have in a good meaſure been compenſated by the Potteries, which a Spirit of Imitation has produced in various Countries, but in *Holland*, *England* and *France* particularly. In the ſame manner, the Cotton Manufactures of the *Indies*, have produced the like in *Europe*; and there is the utmoſt Certainty, that the Silk Trade is ſpread even hither by degrees, from *China*, where it was originally cultivated.

It appears therefore that Navigation has a double Advantage, it enables the Inhabitants of the Country where it flouriſhes, to export what they have, and to import what they have not. Nay, it does ſtill more, for it veſts in them a Power of procuring Commodities from one Place, and after manufacturing them at Home, exporting them to another; and a little Practice of this Sort, begets ſuch a Genius for Commerce, that ſuch as are accuſtomed to it, are continually inventing new Methods for augmenting the Number of Advantages they derive from thence, and repairing the Deficiencies which ariſe in length of time, and from that Viciſſitude to which all things in this World are liable. They have a conſtant Knowledge of the Wants of other Countries, and the Means by which they may be ſupplied, and this gives them vaſt Opportunities of enriching themſelves, merely by being the Agents and Carriers between thoſe who ſuffer from Indigence, and ſuch as are bleſſed with Abundance. Theſe People avail themſelves of the Condition of both, for they ſell in proportion to the Neceſſities of thoſe that buy, what they purchaſe cheap from thoſe who ſold cheap, becauſe they had Plenty. By frequent Voyages to the ſame Country they find means to tranſport from thence ſkilful Artiſts to their own, where by the Application of their Talents, they diſcover Treaſures that had long lain hid from the Natives themſelves, and by the Propoſal of great Advantages, they engage in like manner the ableſt Manufacturers to deſert the Place of their Birth for another, where they may thrive more and labour leſs. By the ſame Method they extend that Navigation, with the Value of which they are ſo well acquainted, and thus transfer the Advantages long reaped by others to themſelves. It was by a Man they releaſed out of Priſon at *Liſbon*, that the *Dutch* were firſt taught the Route to the *Eaſt-Indies* by the *Cape of Good Hope*, and they were indebt-

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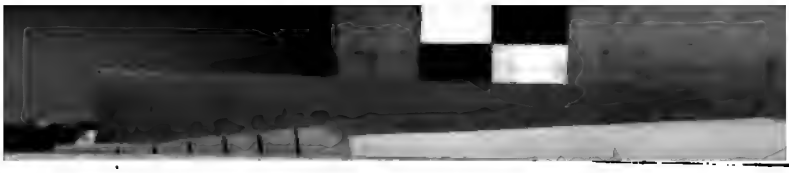

ed to *English* Pilots for the firſt Voyages they made to the *Weſt-Indies*, and alſo to *Japan*.

While we were Strangers here to Navigation, our Country was thin of People, we lived as it were upon the main Stock. A few Staple Commodities, and a very few Manufactures were all we had, and when taken off by Foreigners, they furniſhed us with what they thought fit, and almoſt at their own Rates. But when once Navigation began to thrive, when inſtead of freighting other People's Ships, we bought Veſſels of our own, and our People began to take a Liking to the Sea, the State of Things were quickly changed; we brought home the Product of other Countries at a ſmall Expence, in compariſon of what they coſt us, and by opening different Markets, found means to vend what we carried out, at much higher Rates. This Intercourſe did not continue long before it introduced an Alteration of Manners, a Change in our Habits, Furniture, Building, and Way of Living; in ſhort, it multiplied our Wants, and the Deſire of ſupplying them begot Plenty. As we imported many Things from Abroad that were entirely new and ſtrange, ſo we found many Things at Home of ſmall Value, which were in high Eſteem Abroad. In Proceſs of Time, we looked more cloſely into the Cauſes why other Nations were rich, and having found them, we began to imitate their Manufactures, and improve their Inventions. In reſpect to the latter, we were remarkably happy, and this very ſoon enabled us to excel in the former. Thus we learn from one Nation to Weave, from another to Dye, and from a third to vary our Manufactures from Cloths into Stuffs. We learn from the *Germans* Clock and Watch-Work; we brought the Art of making Glaſs from *Italy*; and by the *Dutch* we were inſtructed in the curious Myſtery of caſting Types for Printing, in all which we now are equal, and in the two firſt without Controverſy, ſuperior to our Maſters; nor ſhould I heſitate in affirming the ſame of the laſt, if it depended not upon a ſingle Hand, whoſe Dexterity ſeems to be above the reach of Imitation.

It is by our Progreſs in Navigation, that we have realized and ſecured the Advantages Nature inveſted us with by our Situation. By this means every Harbour, every little Port, Inlet and Creek, is become a new Benefit, as it opens a Paſſage for what we want to ſend Abroad, and an Entrance to whatever we would bring Home. To this we owe the happy Diſtribution of our Trade, ſo that every Branch of it is, or may be managed to the utmoſt Advantage, as

it is ſcarce poſſible for any Wind to blow that does not carry Veſſels from one Port and bring them into another; in ſhort, Navigation may be conſidered as the Channel thro' which all our Commerce circulates; and from hence we may learn, of how great Importance it is, that it ſhould be free and undiſturbed; from hence we ſee, that whatever clogs or impedes it, muſt be a univerſal Detriment; for it is with the Body Politic, as with the Natural Body, if the Circulation ſuffers, it can never be ſound; and from hence we alſo diſcover, that whatever promotes Navigation, promotes the general Intereſt of the Nation, as Trade depends upon it, and upon Trade the Value of our Houſes, our Lands, and their Produce.

To enter into the Hiſtory of our Shipping, would lead us into a very large Field, which, though curious and entertaining, would not contribute to inſtruct us much, yet a few Touches upon this Hiſtory may be very proper. Our Shipping in the Days of the *Norman* Kings, could be but very inconſiderable; for in Queen *Elizabeth*'s Time, that is, in 1575, I find that the whole Royal Navy conſiſted of but twenty-four Ships, the largeſt of which was the *Triumph*, of the Burthen of one thouſand Tons; the ſmalleſt was called the *George*, and was under ſixty Tons; I likewiſe find, that all the Shipping in *England* above the Burthen of forty Tons, and below that of an hundred Tons, amounted only to ſix hundred and fifty-ſix Veſſels; and thoſe of an hundred Tons and upwards, of all Sizes, amounted to one hundred and thirty-five. The whole of our Naval Force, (for not only all the Ships in the Queen's Service, in *A. D.* 1588, or ſhe could hire, but as many more were fitted out at the Expence of the Inhabitants of Sea Ports, and other private Perſons) yet amounted in the whole, but to one hundred and forty-three, including Tenders, Storeſhips, and Veſſels of all Sizes, great and ſmall. In the Reign of King *James*, there were nine Ships of War added to the Royal Navy; and whereas at the Death of Queen *Elizabeth*, the Navy might conſiſt of ſixteen thouſand Tons, at the Death of King *James* it amounted to twenty-three thouſand. In his Reign, Ship-building was brought to a great Perfection, by the famous *Phineas Pett*, who, after a liberal Education in the Univerſity, applied himſelf with vaſt Succeſs to this curious Art, in which he arrived at much greater Perfection than any Man in his Time. Before the breaking out of the Civil Wars, our Navy was conſiderably increaſed; and this I take to be the cleareſt Proof of the Increaſe of our Shipping

ping and Navigation, which always augmented in the ſame Proportion, the Cauſes of which we need not explain, becauſe the Thing ſpeaks itſelf.

At the Time of the Reſtoration, our Fleet was very conſiderable, and on account of the *Dutch* War that followed ſoon after, was greatly augmented. In the Year 1670, the Lord Keeper *Bridgman* affirmed, that for ten Years paſt, the annual Charge of the Navy amounted to half a Million; and in 1678, the Royal Navy conſiſted of eighty-three Ships, of which fifty-eight were of the Line of Battle; and at this Time Sir *William Petty* computes, that the Exports of this Nation amounted to ten Millions a Year. The Balance of our Trade is by Dr. *Davenant* fixed at this Time to two Millions, and indeed it could not be leſs. At the Revolution the Royal Navy conſiſted of one hundred ſeventy-three Sail, great and ſmall, carrying in the whole about ſeven thouſand Guns. Since that Time, it has been continually increaſing, ſo that according to the laſt Abſtract in the preſent Year, it amounts to three hundred twenty-two Sail, carrying twelve thouſand two hundred and ſeventy Pieces of Cannon; and if all were in Commiſſion, and manned to their full Complement, they would amount to eighty-three thouſand four hundred Seamen. We may from thence form ſome Idea of the vaſt Augmentation of our Navigation and Shipping in general, which without all doubt has been, if not exactly, yet very nearly in Proportion to that of our Fleet.

There is yet another kind of Computation which may be of great uſe to a young Reader, and that ariſes from the Compariſon that may be made between the Maritime Powers of *Europe*; a Point that has very often and very juſtly exerciſed the Thoughts of the greateſt Men. Sir *Walter Raleigh* made a very ingenious Calculation of the Maritime Power of *Europe* in his Time; and Sir *William Petty* from better Lights gave us another Calculatihn, which has been conſidered as the Standard ever ſince. He thought that the *Dutch* had about 900,000 Ton in Shipping; *Great Britain* 500,000; *Sweden*, *Denmark*, and the Trading-Towns in *Germany* 250,000; *Portugal* and *Italy* 250,000 likewiſe, and *France* about 100,000. But ſince that Time, Things have altered very much, both with reſpect to us and other Powers, inſomuch that I am fully perſuaded, that our Shipping was before the breaking out of the late War, at leaſt double to what it might be at the Concluſion of the Peace of *Utrecht*. It is, I muſt freely acknowledge, a very difficult thing to pretend to give with any Degree of Exactneſs, the preſent Proportions of Maritime

ritime Power; however till a better can be formed, I flatter myſelf the following Table may have its Uſes.

If the Shipping of *Europe* be divided into twenty Parts, then

Great Britain, &c. hath	6
The *United Provinces*	6
The Subjects of the Northern Crowns	2
The trading Cities of *Germany*, and the *Auſtrian Netherlands*	1
France	2
Spain and *Portugal*	2
Italy, and the reſt of *Europe*	1

The Grounds upon which this Calculation ſtands, would require a great deal of Room to explain. And after all, it might prove no eaſy thing to perſuade ſuch as are acquainted with the Commerce only of this or that particular Country, to admit that the Computation is fairly made; but however, it will I dare ſay be found, that ſuch as are concerned for any particular Country, will allow the Table to be right enough as to the reſt, which is as much as any one can well expect. It muſt be alſo allowed, that as theſe Proportions are continually varying more or leſs, ſo a Computation of this Kind cannot long continue very near the Truth; but as theſe Defects are in the Nature of the thing, and not at all in the Computation itſelf, this is a reaſonable Excuſe; and beſides, with reſpect to the End for which it is here produced, it is ſufficiently uſeful, as it will ſerve to give a general Notion of this Matter, and by ſhewing its Importance, put the Reader upon ſuch an Enquiry, as may enable him to rectify any Errors that Time and Chance, which happen to all Things, may introduce.

CHAP.

CHAP. IX.

A View of the Foreign Trade of Great Britain, *ſhewing the ſeveral Countries to which we export, and from which we import Commodities and Manufactures; with ſome Obſervations and Remarks on the Nature of the Commerce carried on to and from the ſeveral Countries therein mentioned.*

THE Deſign of this Chapter is no more than to exhibit the Heads of a General Hiſtory of *Britiſh* Commerce, and to trace the Out-lines of a prodigious Structure: that after having made himſelf acquainted with the general Principles relating to Trade and Navigation, and ſeen how far they are capable of contributing to the Welfare of any People, it may be alſo in the Power of the Peruſer, to have a Glimpſe at leaſt of the great End to which this is directed, and acquire ſome Idea of what makes ſuch a mighty Noiſe in the World, I mean the *Britiſh* Commerce. A thing which attentively and diſtinctly conſidered, will appear to be in the ſmall Number of thoſe which Fame has endeavoured to magnify in vain; and yet there is nothing more true, than that almoſt every ſingle Branch of it is very capable of Improvement; ſo capable, that I make no Scruple of affirming the Commerce of *Britain* might be raiſed as much beyond what it now is, as it has been carried beyond what it was at the Time of the Reſtoration. A Work worthy the Attention, and which would well reward the Pains of our diſintereſted Patriots, and virtuous Miniſters. Let us at preſent overlook the future Proſpect, and content ourſelves with conſidering it as it is.

The Commerce between *Great Britain* and the Countries ſubject to the Grand *Signior*, is carried on by the Merchants incorporated into the *Levant* or *Turkey* Company, now open'd in ſuch a manner, by a late Statute, as to be more capable of anſwering national Purpoſes; without leſſening the particular Advantages, which *Turkey* Merchants ought in Juſtice to enjoy. The Commodities we export are chiefly Lead, Tin, and Iron; and of our Woollen Manufactures, Broad Cloth, and long Ells. It is alſo ſaid, that our Merchants ſend thither *French* and *Liſbon* Sugars, as well as Bullion. We take in Return raw Silk in great Quantities, which however is only proper for the Shute of our Damaſk, and other colour'd Silks; will alſo ſerve for making Stockings, Galloons, and Silver and Gold Lace; but is not proper for the Warp of any Silk, nor even for the Woof of ſome of the finer Sorts.

We

We import alſo Grogram Yarn, Dying Stuffs of various kinds, Drugs, Soap, Leather, Cotton, Fruit, Oil, *&c.* While the War continued, it was a great Help to us in this Trade, as the *French* are our principal Competitors therein; and as they ſuffer'd very ſeverely not only by Captures, but by the high Inſurance they pay'd on all the Goods they exported; ſo they could not but come very dear to Markets, and perhaps we preſerve ſtill ſome of the Advantages then acquired.

We export to *Italy* of our own Commodities, Tin and Lead, great Quantities of Fiſh, ſuch as Pilchards, Herrings, Salmon, Cod, *&c.* Various Kinds of *Eaſt-India* Goods; and of our Manufactures, Broad Cloths, Long Ells, Bays, Druggets, Camblets, and other Stuffs; as alſo Leather and other Things. We import from thence prodigious Quantities of Silk, raw, thrown, and wrought; Wine, Oil, Soap, Olives, Dying Stuffs, *&c.* It is from this Country, and more eſpecially from the Dominions of his *Sardinian* Majeſty, that we have the fine Silk called Organzine, which is thrown by an Engine much truer than it can be by Hand, of which we have one, and but one, at *Derby*. That Prince however has taken care to preſerve to his Subjects this precious Commodity in its full Extent; for we have no *Piedmont* Silk raw, and what we have we pay for in ready Money, at a very high Rate. This therefore makes the Balance of Power, and the Change of Maſters, at leaſt in the Maritime Part of *Italy*, a Thing of very great Conſequence to *Great Britain*, and as ſuch it ought always to be conſidered by our Miniſters, and if poſſible in no other light.

We export to *Spain*, Tin, Lead, Corn, *&c.* Pilchards, Herrings, Cod, and other kinds of Fiſh; of our Manufactures, Broad Cloth, Druggets, Bays and Stuffs of various kinds, as alſo a great Variety of different Goods, which are reſhipped by them from *Cadiz* to their Colonies in *America*. On the other hand, we import from *Spain*, Wine, Oil, and Fruit, Wool, Indigo, Cochineal, and other Drugs. It appears from hence, that if the *Spaniards* are good Cuſtomers to us, we are alſo the beſt Cuſtomers they have; for it is thought we take off two thirds of their Commodities; ſo that conſidering them as a Nation, nothing can diſtreſs the *Spaniards* ſo much as a War with the *Engliſh*. It is very true, that in time of Peace we draw a conſiderable Balance from thence in Specie or in Bullion; but at the ſame time, we furniſh them with the Commodities that are moſt neceſſary, with the Manufactures that bring them this Bullion, and take alſo vaſt Quantities of Commodities that muſt otherwiſe lie upon their Hands; where-

as the *French* furniſh them with many Trifles, as well as ſome coſtly Manufactures, for which they are paid wholly in Silver. Hence it appears, that it is the mutual Intereſt of *Spain* and *Britain* to deal with each other; and if this was thoroughly inculcated, it would enrich us and ſerve them.

We export to *Portugal*, Tin, Lead, Corn, Fiſh, and almoſt all of our Commodities; as alſo Broad Cloths, Druggets, Bays, Stuffs, Leather, and many other Manufactures; we take from them Wine, Oil, Salt, and Fruit; ſo that though it is generally ſuppoſed the Balance of this Trade is as much in our favour as any, yet the *Portugueſe* find their Account in it; for in the firſt place, we take almoſt all the Commodities they export, and for which, if we did not take them they could hardly find another Market; and we furniſh them with the beſt part of thoſe Things they export to the *Brazils*, and thereby draw that immenſe Treaſure yearly, which, for its bigneſs, renders *Portugal* one of the richeſt Countries in *Europe*. Beſides, theſe reciprocal Advantages have made ſuch a Connection between our Intereſts, that upon all Occaſions we have been ready to eſpouſe thoſe of *Portugal*, and to protect her from the only Power ſhe has reaſon to fear, by the timely Interpoſition of our Maritime Force.

We export to *France*, Tin, Lead, Corn, Horn-Plates, and great Quantities of Tobacco, ſome Flannels, and very little elſe of our Manufactures; we take from thence, in Time of Peace, Wine, Brandy, Linen, Lace, Cambricks, Lawns, (unleſs our late Acts can keep them out) and an infinite Number of other Things which are run in upon us, and whatever elſe the *French* are pleaſed to direct; whence it appears, that of all others, the *French* Commerce is to us the moſt dangerous and deſtructive.

We export to *Flanders*, Tin, Lead, and ſome Iron-Ware, as alſo Sugar and Tobacco; of our Manufactures, Serges, ſome Flannels, and a few Stuffs. On the other hand, we take from them fine Lace, Cambricks, Lawns, Linen, Tape, Inkles, and other Goods of that kind, to a very great Value; ſo that there ſeems to be no doubt that the Balance of this Trade is conſiderably againſt us, which is chiefly owing to the Prohibition of our Cloth; and therefore if any thing be worthy our ſeeking on the Continent, it is the Port of *Oſtend*, with a ſmall Diſtrict about it, which at the ſame time would be of ſervice to our Allies, and might contribute to repair the Expences we have been at in our ſeveral Land-Wars. This I mention only incidentally.

We

We ſend to *Germany*, Tin, Lead, and many other Commodities; Tobacco, Sugar, Ginger, and all kinds of *Eaſt-India* Goods. Of our Woollen Manufactures, ſome of almoſt every kind we make. On the other hand, we take from them Tin-Plates, Linen, Kid-Skins, and ſeveral other Things. The Balance of this Trade is looked upon to be very much in our Favour, but it might be made ſtill more; for in many Places of late they have prohibited different kinds of our Manufactures, and in ſome they have prohibited all. But in our Treaties of Subſidy, if we had an Article to prevent or remove ſuch Prohibitions, it would be but reaſonable: for as we pay the *Germans* for fighting their own Battles, they might methinks in return allow a free Vent to our Manufactures, and as they are ſure of taking our Money, give us a Chance at leaſt for ſeeing ſome of theirs.

We have a great Trade with *Denmark* and *Norway*, but we export very little; a ſmall Quantity of Tobacco, and a few coarſe Woollen Goods is all; but we are forced to tack to theſe Crown-pieces and Guineas, to pay for Timber and Iron; and the Matter is not at all mended, but on the contrary grows worſe, if inſtead of exporting our Wealth, we ſtay till the *Danes* come and fetch it, for then we not only pay for their Goods, but the Freight alſo; and this Evil it ſeems is not in our Power to cure at preſent.

We carry on the ſame kind of loſing Trade to *Sweden*, where it is a Maxim of State to beat out as much as poſſible all our Commodities and Manufactures; and this has been ſo ſteadily purſued, that it is now pretty near done, and Gold and Silver are almoſt our only Exports. Copper, Iron and Naval Stores, are the Goods we bring from thence, to the Amount of about three hundred thouſand Pounds a Year. We were formerly under a Neceſſity of doing this; becauſe their Goods muſt be had, and could be had no where elſe. At preſent it is otherwiſe, we might have all theſe at much more reaſonable Rates from our own Plantations, which is much the ſame thing as having them at Home; ſo that one well-conſidered Act of Parliament would free us from this Inconveniency, keep ſo much ready Money in the Kingdom, and keep a Nation from thriving by our Trade, who have for a long Space of Time ſhewn very little Regard for our Friendſhip.

We export to *Ruſſia*, Tin, Lead, and other Commodities, a great Quantity of Tobacco; and of our Manufactures coarſe Cloths, long Ells, Worſted Stuffs, *&c.* on the other hand we import from thence, Tallow, Furrs, Iron, Pot-Aſhes,

Aſhes, Hemp, Flax, Linen, *Ruſſia* Leather, *&c.* Our Trade to this Country is managed by a Company, the beſt conſtituted, and the beſt conducted of any that we have; for any Merchant may be admitted into it for a very ſmall Conſideration, and the Meaſures they purſue are ſuch as prove highly beneficial, and never can do any Harm. The Trade thro' this Empire into *Perſia*, may become a Thing of great Conſequence, as it will furniſh us with that Sort of Silk which we want moſt, at an eaſy Price, and may be attended with other Advantages that we have not room to explain.

We export to *Holland* almoſt all the Commodities and Manufactures that we have, as well as moſt of our Plantation Goods, and of thoſe we bring from the *Levant* and the *Eaſt-Indies*. We import prodigious Quantities of fine Linen, Threads, Tapes, Inkles, Whale-fins, Braſs-Battery, Cinnamon, Mace, Cloves, Drugs, and Dying-Stuffs, *&c.* yet with reſpect to the fair Trade we have a large Balance; the only doubt is, how far this may be abated by the great Induſtry of thoſe deteſtable Miſcreants the Smuglers, who gain their Bread and raiſe Fortunes by a ſteady Purſuit of their private Intereſts, at the Expence of the Public; ſo that being our moſt dangerous Enemies from their Practices, there is no kind of Injuſtice in puniſhing them as Out-laws, and looking upon them as Traitors.

With reſpect to our *African* Trade, it is certainly of the higheſt Importance to the Nation, for it creates a vaſt Exportation of our Commodities and Manufactures, and produces a large Balance in Bullion from the *Spaniards*, as well as in Gold-duſt, Red-wood, Ivory, and other valuable Commodities, ſome of which are re-exported; but above all it ſupplies our Plantations with Negroes, which is a Thing of prodigious Conſequence. The old *African* Company of *England*, once the moſt flouriſhing and profitable of all our Companies, and but for bad Management within, and Party Prejudice without, might have continued ſo, has been at length diſſolved by Parliament, and the Commerce put into a new Channel, which either anſwers, or will be made to anſwer national Purpoſes, ſince no Commerce can more nearly concern *Great Britain* and her Colonies than this does, and ſcarce any is ſo much the Subject of foreign Envy.

The *Eaſt-India* Trade is a prodigious Thing, and of great Benefit to the Nation, tho' we export chiefly Bullion; and tho' it is carried on by a Company. But the Goods we bring Home are bought at low Prices, are ſold at high Rates, and what we export is very juſtly believed to produce a Balance equivalent

equivalent at leaſt to the Bullion that is ſent out to buy them. It has been of late ſuggeſted, and not without good Reaſon, that this Commerce is capable of great Improvements, by extending it to the North-Eaſt; for in that Caſe, we might hope to vend large Quantities of our Manufactures, which would at once remove the only reaſonable Exception that was ever taken to this Trade, augment our Navigation, and hinder the Northern Nations from interfering with us, by employing the very Money we pay for Naval Stores, in beating us out of a very conſiderable Branch of Commerce, for the carrying on of which thoſe Stores are purchaſed.

As for the Plantation-Trade, we have already ſpoken of it, and without doubt is is by far the moſt conſiderable of any that we have, and which ought to be a Comfort to us, is notwithſtanding this, far leſs conſiderable than it might be; for with a little Pains and Encouragement, it might be made in its Savings and in its Produce, twice or thrice as beneficial as it is; for it has been computed, that by encouraging Hemp and Flax, Pot-Aſhes, Timber, Iron, and other naval Stores, and Silk, we might either get or keep conſiderably above a Million annually, and by making other Regulations it is demonſtrable, that within a few Years we might gain as much more.

Thus the Reader ſees from this ſhort Diſcourſe what Trade was, what it is, and what it might be. May the Giver of all good Things, to whoſe gracious Diſpoſition we already owe ſo much, incline us to a grateful Senſe of his Goodneſs, and teach us to make a right Uſe of the numberleſs Advantages he has put into our Power! and may it be the Study of the riſing Generation, to proſecute whatever their Anceſtors have wiſely begun; to amend their Errors, and to exceed their Endeavours, ſo ſhall we remain a rich, a powerful, and a happy People!

PART

PART XI.

ON

Laws and Government.

ON LAWS AND GOVERNMENT.

CHAP. I.

An Enquiry into the Principles of Society; different Sentiments upon that Subject examined; great Difficulties that occur in learning any thing ſatisfactory on this Head, from Hiſtory; Liberty, a Thing little underſtood; falſe Notions about it; true Liberty derived from Laws and Government, which civilize and poliſh human Nature; from whence ariſes the moral Obligation of preferring the Welfare of Society to all other Conſiderations.

THERE are very few Subjects that have been more frequently handled, or more largely diſcuſſed, than thoſe which are to be the Subject of this Diſcourſe, and yet there are hardly any Subjects about which, even the greateſt and wiſeſt Men have differed more. It appears to be, and indeed it is a very difficult thing to aſſign the true Cauſe of this; but that which ſeems to bid the faireſt for that Character, is the different Views with which moſt of thoſe Writers penned what they have delivered upon theſe Heads; for it muſt be allowed that very few have written entirely without Biaſs, that is, without a Deſign of recommending ſome particular Syſtem, by laying down its fundamental Principles, as thoſe upon

which human Society either was, or ought to have been built. This however is not at all our Intention; for we mean not to amuſe young Minds with any ſuch artful Schemes, but on the contrary, aim only at the Diſcovery of Truth; and therefore we ſhall exhibit the Sentiments of others, and by comparing them, endeavour to give as fair and as genuine Repreſentations of theſe difficult Points as in their Nature they are capable of receiving.

A great Part of thoſe wiſe and learned Men who have endeavoured to trace out the Origin of Government, have conceived, that as all States are made up of a leſſer or greater Number of Families, ſo the firſt kind of Government muſt have been that which is natural in every Family where the Parent is the Head or Chief, and this is ſtiled the Patriarchal Scheme. Others again, conſidering the natural Diſpoſition of Men, and their Proneneſs to gratify their Deſires at the Expence of each other, have ſuppoſed, that a State of Nature was a State of War, and that Laws and Government were introduced by the dear-bought Experience of the many Inconveniencies with which ſuch a State was naturally attended. The Arguments offered on both Sides are very plauſible, and have a great Appearance of Reaſon; notwithſtanding which, the Objections that have been raiſed againſt each of theſe Notions are alſo very weighty, and cannot eaſily be anſwered. It may perhaps be the moſt probable Way of coming near the Truth, to blend theſe Sentiments; for as on the one hand, Men do not ſpring like Muſhrooms in a Night, ſo it is reaſonable to allow, that while there were but a few Families in the World, Patriarchal Government might take place; but as Families multiplied, there ſeems to be no Reaſon to doubt that Contentions might enſue, and that for the Remedy of thoſe Inconveniencies which ſuch Contentions produced, the wiſer and more ſober Part of Men had recourſe to certain Reſtrictions, or, in other Words, Laws; and for the enforcing and maintaining of theſe, introduced that kind of Order which is ſtiled Government.

One would naturally ſuppoſe, that the beſt Account of theſe primary Laws, and the earlieſt Forms of Government might be learned from Hiſtory; and yet we do not find that by this Method any great Certainty can be attained. The Writings of *Moſes* are the moſt ancient we have, and very probably contain the Subſtance of earlier Writings, long ago loſt and buried in oblivion. From thence we learn indeed, how the World was firſt peopled; but with reſpect to Laws and Government they are remarkably ſilent, only thus much

much appears in Favour of what we have advanced as to the blending the oppoſite Syſtems, that the Patriarchal Government did not long ſubſiſt, but, on the contrary, Diſſentions began, and as Families multiplied they ſpread themſelves upon the Face of the Earth, and lived (if we may be allowed the Expreſſion) under different Conſtitutions, tho' of what Nature they were does not at all appear. As to profane Hiſtories, they are ſtill more dark, and conſequently leſs is to be learnt from them; nor ſhall we find ourſelves much better inſtructed, if inſtead of making hiſtorical Reſearches, we have recourſe to Experience, and look for the original Forms of Laws and Government among new-diſcovered Nations; for there we find the ſame Differences and Varieties, one People being governed one Way, and another in a Method quite oppoſite. Some, as in *Groenland* and the Northern Parts of *America*, living in Families in a State of Independency; others in Tribes under the Chiefs of particular Families; and in many Countries we find Princes and their Counſellors elected on the Score of Merit, and more eſpecially military Abilities; ſo that on the whole, there is no arriving at any Sort of Certainty by theſe Enquiries, the great Fruit of which ſeems to be no more than this, that it is a vain thing to look for any original Syſtem, and that all things conſidered, it is moſt likely that Laws and Government, like other things, have in all Places ſuffered ſuch a Variety of Changes, that we can only know they have been every where found more or leſs neceſſary, and have been introduced and ſubmitted to in its turn by every Nation, for the Sake of the Advantages they produce, and in proportion as theſe were underſtood.

There can be nothing more evident, than that with reſpect to the Condition of Mankind there is an abſolute Equality; ſo that it is a wild and abſurd thing to ſay, that from the Law of Nature there ariſes any Claim of Authority, or Obligation of Obedience. But tho' it be true, that every Man is born free, or at leaſt that every Man is born as free as another, yet the Weakneſſes and Infirmities to which human Nature is liable, immediately begets not an Expediency only, but a Neceſſity of Subjection. If there were any Occaſion of fortifying this, we might alſo intitle it to a divine Law; for the natural Affection which Parents have for their Offspring, and which puts them upon ſubſiſting and educating them, is implanted in the Heart of Man by his Creator, as much as any other Paſſion or Inclination of the Mind; and from this paternal Care and Affection,

the reciprocal Obligation of filial Obedience plainly arises. But it does not seem to follow, that this filial Obedience is of the Nature of that political Subjection, of the Origin of which we are now in search, and that for this Reason; because in Process of Time this Obligation is lessened or taken away by the growing up of the Son, and his becoming in his turn the Father of a Family, and the Master of a Household. From what has been said it appears, that there is a Difference between natural and civil Obedience, and that tho' it may in one Sense be affirmed, that all Men are naturally equal, yet this is to be understood with respect only to civil Power and civil Obedience; and therefore to these only our Notions of natural Liberty must be confined.

We must however allow, that in the Number of those Passions which are natural to the Heart of Man, the Love of Freedom is one of the strongest, and, like all other Passions, cannot therefore, simply considered as a Passion or Desire of the Mind, be criminal. But then on the other hand, this, as well as all other Passions, can be no longer innocent or laudable, than as it is regulated and directed by Reason. To be convinced of this we need only consider, that what we call Passions or natural Desires, are the Propensities of the Mind to the Attainment of Good, and what that is we must learn from that Instructor given us for this End by our Creator, which is Reason. When therefore we find Poets, Orators, or political Writers, celebrating the Praises of Liberty in very high Terms, and with many pompous Expressions, we must not take these in a literal and unlimited Sense; because if we do, they will signify just nothing, since unlimited and absolute Freedom in Individuals is a mere Chimera, a thing in itself impracticable, and the Endeavour of obtaining which would totally destroy the End; since if all Men were absolutely free, and were to prosecute the Claims incident to this supposed natural Right, they must break in upon and destroy each other's Freedom. Or to put this in fewer Words, and which will at once shew the Force of this Reason; we can have no Conception of this absolute Freedom, without supposing that every Man has a Right to every thing; and it is plain, that if all have an equal Right to the same thing, it is impossible that any should have a distinct and particular Right to it; but absolute Freedom implies not only a Right to enjoy, but a Power and a Capacity of enjoying whatever a Man has such a Right to; and as these Propositions are incompatible with each other, and as we are certain that Nature, and the Author of Nature never intends

intends Abſurdities, we muſt be from hence ſatisfied, that abſolute and uncontroulable Liberty is a thing inconſiſtent with our Nature, and therefore cannot be that Sort of Liberty which is the proper Object of our Deſire.

But if by this Train of Reaſoning the Notion of abſolute and uncontroulable Liberty is exploded, it does not at all follow from thence, that the natural Deſire we have for Liberty, is incapable of attaining its End; for if this was the Caſe, Man would by the Law of Nature, or which is the ſame thing in other Words, by the Will of his Creator, be a miſerable Being, which is another groſs and palpable Abſurdity that can never be admitted. To extricate ourſelves therefore from theſe Difficulties, and to reconcile this Paſſion for Liberty to other Circumſtances of human Nature, we muſt endeavour to diſcover whether there be not ſome certain kind of Freedom practicable and attainable; for if this can be found, we come at once out of this Wilderneſs, and recover a fair and open Path to that Good to which we find ourſelves inſtigated by Nature. Theſe Reflections are not only in themſelves juſt and proper, but are abſolutely requiſite for Men to make, that they may act ſuitable to the Rank they hold in the Scale of Beings, and thereby attain that Happineſs of which they are capable, and of which they are only capable, by purſuing the Impulſes of natural Deſires according to the Lights afforded, and the Directions given them by Reaſon; for it is ſimply impoſſible, that a rational Being acting as ſuch ſhould be miſerable, for all Miſery is a Puniſhment, which can never be incurred but by our own Fault, that is, by our acting wilfully againſt the Rule of our Nature, or which is the ſame thing, willing ourſelves to be miſerable, and becoming ſo by our own Follies and Faults. But to avoid this Miſchief in the preſent Caſe, let us, ſince we have ſeen what Liberty is not, uſe the ſame cool and equal Method to diſcern and find out what it is, and there is no Doubt that we ſhall ſucceed.

We have in the firſt Chapter of the former Diſcourſe ſhewn, that the particular Wants and Diſtreſſes of Men, as Men, become the Cauſes of Eaſe and of Abundance, and with a little Attention we ſhall find that the Sacrifice or yielding up of this uſeleſs and impracticable Claim to abſolute and unreſtrained Liberty, is the true Source of that rational and real Freedom, which is the proper Object of that warm and vigorous Deſire which is implanted in the human Mind. If all Men were to inſiſt upon their Rights of poſſeſſing all things, it is plain they could poſſeſs nothing, or at

leaſt the Poſſeſſion of every Man would depend upon perſonal Strength or Force, which would render it extremely precarious, and of little or no Value. To remove this Difficulty, and that they might make way for a State of Peace and Security, the Eldeſt and moſt Conſiderate deviſed certain general Rules, by complying with which Quiet might be attained, and every Man enabled to apply his bodily Labour, or the Abilities of his Mind, for the procuring his own and his Family's Subſiſtence. After a little Trial, the Conveniencies reſulting from this Contrivance made its Uſefulneſs more and more apparent, and every Inconvenience being by degrees remedied through the Alteration of old, or by Addition of new Rules, the Syſtem at length reached Perfection. Theſe Rules, are what we properly ſtile Laws, by ſubmitting to which, Men enter into a new State, and become Members of Society. This may be very juſtly ſtiled a new State, becauſe it differs very widely from that which is conceived to be a State of Nature. In this there is an Equality between Man and Man, and every Individual ſeems to be guided either by his Appetites or his Neceſſities; and to gratify the one, or to relieve the other, his Claim of Right is ſo extenſive, that there ſeems to be no other Bounds aſſigned to it, than what ariſe from the Oppoſition of ſuperior Force from others. All theſe uſeleſs Rights, as we have before ſhewn, every Individual reſigns when he becomes a Member of Society, and in Exchange for them he receives other Rights reſulting from the fundamental Regulations of Society, which are of infinitely greater Value. His Prerogatives are indeed not ſo high, but in return for them he has Security, and if his Claim of Poſſeſſion is limited, this very Limitation produces Property; ſo that in few Words, and by an eaſy Deduction of Proofs we have ſhewn, that Society is the Work of Reaſon; that in a State of Nature, Men are conſidered as a Species of Animals, and that we diſcover them to be rational Beings, firſt, by their exerciſing their Faculties in contriving the Scheme of ſocial Life, and abandoning that Courſe which was ſuited only to their animal Nature.

It follows from hence, that when Men become Members of Society, it is the laſt Exerciſe of their natural Liberty, which they ſpontaneouſly lay down for the Sake of another kind of Freedom; which tho' in one Senſe leſs extenſive, yet is more ſo in another; for the Rules of Society take away only ſo much of natural Liberty as hinders one Man by ſuperior Force from oppreſſing another; or in other Words, inſtead of a notional and impracticable Freedom, eſtabliſh, a

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rational and real Liberty. But as the Laws of Society could not have any certain and effectual Operation, if the Force of the Society was not employed to ſupport them, there ariſes from thence the Neceſſity and Reaſonableneſs of Authority, which is the true and juſt Foundation of all Government. By this Chain of Reaſoning we plainly diſcover, that as Society is built upon the common Intereſts of all, ſo the Inſtitution of Government is for the common Benefit of all; and that Power which by the Regulations of Society is veſted in thoſe who are called to the Government, is no more than a Depoſit of the common Rights of Mankind, which in the Hands of Individuals, were either noxious or uſeleſs; in the Cuſtody of a few, for the Advantage of all; and that every Individual may enjoy his reſerved Rights in Peace and in Security.

It is therefore in conſequence of Laws and of Government, that Men are enabled to enjoy in this Life, that Happineſs which is agreeable to the Nature of rational Beings; this calls forth Induſtry and Application, which are never ſeen amongſt Savages; this puts them in a Capacity of improving the Country they inhabit, of procuring not only the Neceſſaries, but the Conveniencies of Life, and removing all thoſe Evils, that, conſidering their Circumſtances in this World, it is in the Power either of their Skill or Force to remove. Whatever therefore in the wild Sallies of their Imaginations, Men of warm Genius may have advanced in favour of abſolute Liberty and boundleſs Freedom, it muſt be plain to every one who can conceive the Difference between a Cabin and a commodious Houſe, a Deſart and a well-cultivated Country, a People living wild in Caves and Woods, and a Nation in full Poſſeſſion of Eaſe and Abundance, that Society and Government, with reſpect to temporal Affairs, are at once the higheſt Effects of human Prudence, the true and ſolid Baſis of rational Freedom, and the ſole Foundation of all that can be ſtiled Happineſs in this World.

We may from theſe Conſiderations juſtly deduce the moral Obligation that every Individual is under, of adhering to and promoting the Intereſt of the Society in which he lives, and of which he is a Member. This is his firſt and capital Concern; becauſe his own Security, Peace, and Happineſs, depend upon it. In proportion as this Society flouriſhes or declines, in the very ſame Proportion muſt his own particular Intereſt and that of his Family increaſe or decay. A due and juſt Senſe of this, and a warm and honeſt Inclination to fulfil the Dictates of that Senſe, is what is properly and truly

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called public Spirit, the firſt and greateſt of moral Virtues and without having a warm Feeling of which, it is impoſſible to be an honeſt Man. That there is ſometimes Hypocriſy in this, as there may be in regard to all other Virtues, cannot be denied; but how criminal ſoever this Hypocriſy may be in him who is guilty of it, yet it is a ſtrong Argument in ſupport of the Virtue itſelf; for the more Miſchief a falſe Patriot is able to do, the more worthy, the more amiable, the more laudable is the Character of a true Citizen, who acts from the great and glorious Deſire of doing good to all.

CHAP. II.

An Account of the ſeveral Forms of Government that have prevailed in different Ages and Countries, more eſpecially of the three regular Forms, of Monarchy, Ariſtocracy, and Democracy; the Excellencies and Commodities, together with the Deficiencies and Inconveniencies of each; the Origin and Nature of mixed Governments, their Advantages and Diſadvantages; with a ſuccinct Deduction of the Proofs that demonſtrate any Form of Government to be capable enough of ſecuring the Happineſs of the People who live under it, provided it falls into the Hands of a wiſe and virtuous Adminiſtration.

WE have in the former Chapter given the Reader, within the narroweſt Limits the Subject would permit, the true Principles of Civil Society, the real Foundation of Government, and the Grounds of that moral Obligation that ties every Man who would act as becomes him, not only to ſubmit to, but to uſe his utmoſt Endeavours in ſupporting and maintaining the Conſtitution of his Country, let that Conſtitution be what it will. For the moral Obligation is preciſely the ſame, under whatever kind of Dominion a Man is born; becauſe the Reaſons which enforce it were antecedent to his Birth; and whatever Patrimony, Property or Fortune he has, belongs to him no other way than as a Member of Society, by the Laws of which he was protected in his Infancy through the Power of that Government, to which on this Account he owes a natural Allegiance or Fidelity, which can never be diſpenſed with any other Way, than by the Subverſion of that Government; for then his Allegiance will be due to whatever comes in its Place; becauſe

cauſe Protection and Obedience are reciprocal, and it is impoſſible there ſhould be any moral Obligation upon any Individual to bear Faith to a Non-Entity.

The Forms of Government have been various in all Ages, and in moſt Countries, ariſing originally from the different Sentiments of Men; who, tho' they agreed in forming themſelves into Societies, differed as to the Regulations or Laws for maintaining them, or the Manner in which they were to be executed. But beſides this Difference in the Origin of Forms, many, and thoſe almoſt inexplicable Varieties, have been introduced by Time and Accident. For the Forms of Government, like all other human Contrivances, have been and always muſt be ſubject to Change; neither does it follow, that theſe Alterations are always for the worſe, tho' very frequently they are ſo; for the Circumſtances of the People governed being in a continual Flux, it is not eaſy to conceive how any Government can be ſo perfectly formed as to remain conſtantly ſtable. On the other hand, every Form of Government being the Contrivance of Men, muſt have natural Defects, which, tho' not perceptible in the Beginning, yet diſcover themſelves by degrees, and are either remedied by ſubſequent Contrivances, which by the way are ſo many Changes, or for want of the timely Application of ſuch Remedies, falls by its own Weight, and is diſſolved by the Conſequences of thoſe Defects that were either not perceived, or could not be guarded againſt in its primitive Structure.

But notwithſtanding theſe Differences and Varieties, which, as we have ſaid, being brought about by Time and Accident, are ſo many that perhaps it is not poſſible to explain them all; yet the original Differences are but few, and even the Modifications of them are very far from exceeding the Limits of our Comprehenſion or Explanation. The firſt is Monarchy, which as well as all the reſt is a *Greek* Term, and ſignifies in that Language the *Rule of One*, that is, where the ſupreme Power is inveſted in a ſingle Perſon. Of Monarchies however, there are ſeveral Sorts; the firſt is the deſpotic or abſolute, that is, where the Power of the ſingle Perſon is abſolute or without Reſtraint, and where he has no other Guide in his Adminiſtration but that of his own Reaſon. The Conveniencies of this Form ſimply conſidered, are much ſuperior to any other; for if an abſolute Monarch is endowed with Abilities ſuitable, and with Virtues equal to his Truſt, his Subjects muſt be beyond Compariſon happy; becauſe he will make their Happineſs the End of his Government, and having nothing to reſtrain his Will, may

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very eaſily and certainly accompliſh it. But then the Inconveniencies that from the Nature of Man muſt attend this Form are almoſt innumerable, and Experience ſhews us, that amongſt the Multitude of abſolute Princes there have been in the World, there have been but a few, a very few indeed, that have done any Credit by their Conduct to this Inſtitution. It is however an Error to ſuppoſe, that all deſpotic or abſolute Monarchy is a Soleciſm in Politics, and that there can be none ſuch legally; for the contrary is true, and that in different Parts of the World, and from various Principles. In *China* it is the very Baſis of the Government. In *Turkey*, *Perſia*, *Barbary*, and *India*, it is the Effects of Religion; for according to the Doctrines of the *Koran*, the ſupreme Power is without Controul, and even in *Europe* the King of *Denmark* is legally abſolute by the ſolemn Surrender made to his Predeceſſor of their Liberties by the People. We have very little room to inſiſt upon Particulars; but before we part with this it is neceſſary to obſerve, that tho' in the common Acceptation of Things, an abſolute Monarchy is accountable only to God, yet in fact they are alſo accountable to the People, and even to the Populace. This was ſet in a clear Light to *Louis* XIV. by his Governor, to whom ſome young Noblemen, when he was a Child of about thirteen Years of Age, talking of the unlimited Power of the *Grand Signior*, who could take any Man's Head or Fortune in his Empire, he anſwered like a Boy, *That is to be a King indeed!* His Governor, who had liſtened to his Diſcourſe, taking him by the Shoulder ſaid, *Sire, have theſe young Counſellors of yours told you what are the Fruits of ſuch a Government?* The King anſwered, *No. Why then*, replied his Governor, *I will. After a Series of ſuch fine Actions, theſe Tyrants become univerſally odious, and are either knocked on the Head or ſtrangled by the Mob. Is this, Sire, to be a King? I ſee your Majeſty is ſilent, and I will ſhew you what it is to be a King, and to be truly a King.* Then turning to the young Noblemen, *My Lords*, ſaid he, *you have been guilty of a very high Offence, in ſpeaking ſuch Things here; and it is his Majeſty's Pleaſure, that henceforward you never preſume to enter his Royal Preſence.*

Another kind of Monarchy is that which is limited, where the ſupreme Power is virtually in the Laws, tho' the Majeſty of the Government, and the Adminiſtration, is veſted in a ſingle Perſon. Under ſuch a Government, the Monarch while he adminiſters the Laws, has the ſame Power and Authority as if he was abſolute; but he cannot legally diſ-

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cend or exceed thoſe Laws, much leſs can he act againſt hem; and if he does, he incurs the Penalties preſcribed by he Laws; or if there are no Penalties preſcribed, he will be in the Caſe of that kind of Monarchs, of whom we are to ſpeak hereafter. All limited Monarchies are of two Sorts, either Hereditary, where the regal Power deſcends immediately from the Poſſeſſor to the next Heir of Blood; or Elective, where the Choice depends upon the whole Body of the People who are free, as in *Poland*; or upon thoſe in whom the Conſtitution veſts the Power of Election, as in the *German* Empire, and as ſome Writers ſay, in the Grandees of *Perſia*. This Right of Election again, is ſometimes abſolutely free, as of late it has been in *Poland*; and ſometimes it is reſtrained to the Royal Family, either by Law, or Cuſtom which has the Force of a Law, as of old in *Poland*, where for many hundred Years the next in Blood of the Royal Family was choſen, and ſo the next Heir took the Crown, which yet was not an hereditary, but an elective Monarch. The Conveniencies of an hereditary Monarchy are a clear and uninterrupted Succeſſion; ſo that the Right to the Crown is known to all, and upon the Demiſe of the reigning Prince, the Royal Authority veſts inſtantly in his Succeſſor; whence the Maxim in the *Engliſh* Law, *that the King never dies*. The few Inconveniencies that attend this Form are Minorities, and the Deſcent of the Crown ſometimes to Perſons who make an ill Uſe of their Authority; but as all Forms are ſubject to ſome Inconveniencies, ſo theſe, how grievous ſoever in particular Caſes, are perhaps the lighteſt to which any Form is liable. The Conveniencies of an elective Monarchy, beſides the avoiding thoſe Defects which are ſuppoſed to be in hereditary Royalties, are the maintaining a conſtant Succeſſion of worthy Princes, and allowing Time in every *Interregnum* to alter and reform the Covenant made at the Time of his Inauguration between the King and his People. As for the Inconveniencies to which this Form is expoſed, they are really greater than any to which hereditary Monarchies are ſubject; for to prevent Kings from having the Power to do Miſchief, they are ſo reſtrained as to want that of doing Good; and that Vigour in Action, which is the great and eſſential Benefit of this kind of Rule, I mean of a ſingle Perſon, is almoſt enervated or wholly loſt in elective Monarchies. Beſides, whereas the Inconveniencies of an *Interregnum* are entailed upon this Government, which is torn by Factions in the Life-time of a King, and of Neceſſity

delivered up to Diſcord and Confuſion by his Death; ſo that to avoid theſe Inconveniencies, the hereditary Form is either admitted by Law, or received by Cuſtom, when ſuch Kingdoms are in their beſt Condition, as was formerly the Caſe of *Poland*, in paſt Times of *Denmark*, and of *Sweden* in the preſent.

The third Sort of Monarchy ariſes from the Corruptions of the ſecond, and in its Appearance reſembles the firſt; in ſhort, it is a Tyranny where the Power is not inveſted in the Poſſeſſor, but ſeized by him, ſo that he holds it by Force and not by Law, and conſequently is not an abſolute Monarch, but one acting as ſuch, without a Right to act ſo. There is this Diſtinction between a Uſurper and a Tyrant, that the former intrudes into all that he poſſeſſes in open Violation of the Conſtitution of his Country; whereas the latter may from being lawfully a King, become voluntarily a Tyrant, by exceeding thoſe Bounds that are ſet to his Authority by the Laws which made him a King, and which Laws require Obedience to him as a King, from which when he ſwerves, tho' he may force Submiſſion, yet he ceaſes to have any Title to Obedience. It is univerſally allowed, that every Man has a Right to reſiſt a Uſurper, and indeed this flows from the firſt Principles of Government; but it has been thought not ſo clear, how far Reſiſtance was juſtifiable againſt a Tyrant. It is our Happineſs to live in Times when ſuch Queſtions may be examined with Freedom, and decided with Safety; becauſe we have a King upon the Throne from whoſe Virtues, were he an abſolute Monarch, we have nothing to fear, and from whoſe Wiſdom we are ſatisfied that he deſires no greater Meaſure of Power than the Laws have aſſigned him. This Queſtion then in general admits of a plain Solution; it is impoſſible for a lawful Prince to become a Tyrant, but by exceeding the Limits of his legal Authority; and as this can hardly be done without the Advice, ſo it is impoſſible it ſhould be done but by the Conſent and Concurrence of his Miniſters; and as theſe may be puniſhed in every limited Government for the Exceſſes they commit, whatever Orders they may plead in their Excuſe, ſo the Puniſhment of theſe is the moſt effectual Bar to Tyranny, at the ſame time that it may be done without offering any Indignity to Majeſty, towards which it is not the Duty only, but Intereſt of every free People to behave with the moſt ſincere Reſpect, and the profoundeſt Reverence. It has been a Queſtion, whether the hereditary Succeſſor of a Tyrant might not legally poſſeſs the Power which his Predeceſſor had aſſumed;

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and it is a Queſtion ſtill agitated in ſome Countries, the Monarchs of which have for a long Series of Time been extending their Power at the Expence of the Liberties and Properties of their Subjects; but as the Diſcuſſion of this might appear too aſſuming in us, and as it does not ſeem abſolutely neceſſary to the Subject, it may be ſufficient to obſerve, that as the End of all Forms of Government, and of Monarchy, among the reſt, is the Welfare of the Whole; ſo it is not eaſy to conceive, that Obedience is ever legally, that is, rationally due to a Power that acts in direct Oppoſition to this primary and indiſpenſable Maxim. There are ſome Writers who have carried their Notions on this Head higher, and others lower, but in moſt Caſes this has been from ſome particular Biaſs, in regard to a Point either in View or in Fact: but as we are under no Influence of that kind, we endeavour to deliver the plain Dictates of Reaſon, in the natural Language of Truth.

The ſecond Original Form of Government is that ſtiled *Ariſtocracy*, which is another *Greek* Term, and ſignifies properly the Government of the better Sort. There are ſeveral *Greek* Authors who prefer this to all the other Forms of Government, ſuppoſing that the public Affairs can never be ſo well adminiſtered as by a Senate, or a ſelect Number of wiſe and noble Perſons; the principal Buſineſs of whoſe Life is the Study of true Politics, and the Means of maintaining the Credit and Welfare of their Country. It ſometimes happens, that in ſuch a Government as this, the Majeſty of the State is transferred upon a ſingle Perſon, either for a certain Time, or for Life, and yet the Government remains an Ariſtocracy; becauſe that ſingle Perſon, tho' ſo ſtiled, is not a Prince, but rather repreſents a Prince, as the Doge or Duke of *Genoa*, who continues in his Office two Years, and the Doge of *Venice*, who is for Life: but the Power remaining in the Senate, both Governments are reputed, and indeed are properly ſpeaking Ariſtocratical Republics. The great Excellency of this Form is, that it is extremely well calculated to reſiſt foreign Invaſions, and domeſtic Commotions; for where a Number of the moſt wealthy and potent Citizens are ſo deeply intereſted in the Support of the Government, by having a Share in it, they will certainly act ſtrenuouſly in its Defence both at Home and Abroad, and will exert themſelves to the utmoſt in the Cauſe of the Public, which at the Bottom is their own; ſo that we here ſee the true Reaſon why Ariſtocracy will laſt longer than other Forms, and this I take to be the principal Cauſe why many have preferred

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this to any of the other Forms. Yet it is very far from being free from Inconveniencies; for in the firſt place, the Subjects of ſuch a Government are always treated with great Severity; in the next place, extraordinary Abilities, and even extraordinary Virtues, are dangerous to the Poſſeſſors, from that conſtant Jealouſy inherent to thoſe who have the Adminiſtration in ſuch a State; and laſtly, from that unnatural Reſtraint of Merit, which allows no adequate Reward to ſuch as diſtinguiſh themſelves in the Service of the Public, if they have not the accidental Advantage of Birth; beſides, there is another great and indeed perpetual Diſadvantage incident to this Form, and that is, Cabals among the Nobility, which when they riſe to a certain Height corrupt and deſtroy it, by reſtraining the Exerciſe of the Adminiſtration to a very few Families. And this the *Greeks* called an *Oligarchy*, which is the ſame thing with reſpect to an Ariſtocracy, as Tyranny is in regard to Monarchy; for tho' the exterior or apparent Form of the Government remains, yet the interior and legal Eſtabliſhment is actually loſt: and this with the additional unlucky Circumſtance of its being very difficult, if not impoſſible, to recover or reſtore it; as the People, who have no Share in the Government, ſeldom think themſelves concerned ſo much as to endeavour the reſtoring it.

The third original Form is called *Democracy*, which like the reſt is a *Greek* Term, and ſignifies the Government of the People; for under this Form every Citizen when he has attained to proper Qualifications to recommend himſelf to the public Choice, is intitled by Virtue of that Choice to a Share in the Government. We need not wonder therefore, that this Form has always had many Advocates, that it has been preſented in the faireſt and moſt plauſible Colours; and that it has been cried up as of all others the moſt favourable to Virtue, Merit and Liberty. At firſt ſight indeed it appears ſo to be, but a very little Conſideration will ſhew us, that it muſt be ſubject to many and great Inconveniencies. While the Government is ſmall and low, a Democratic State is generally in a happy and flouriſhing Condition; that is to ſay, it is pureſt, and anſwers beſt the End of its Inſtitution, by which it enlarges and dilates itſelf, arriving quickly at a high Degree of Proſperity, which from the Nature of its Conſtitution it is not able to bear; for as Ariſtocracies are commonly ſubject to Cabals, ſo Democracies are almoſt always diſturbed with Factions; and the more potent the Republic, the more wealthy its Subjects, the more active thoſe who are intruſted with the Government, ſo much

much the more liable it is, and muſt be to ſuch Seditions and Commotions; which after frequent and violent Revolutions, always fatal to many Individuals, end either in a total Subverſion of that Form, or in the Corruption of it, by veſting the Power in the Hands of a few conſiderable Families, and then it becomes an *Oligarchy*; or by a perpetual Fluctuation of Authority, becomes what is called *Anarchy*, which is another *Greek* Term, ſignifying ſtrictly and properly the Want of Government.

Thus the Reader has ſeen the original Forms of Government, and their Corruptions; it remains that we inform him, that to prevent the Miſchiefs and Confuſions introduced by the latter, the beſt Remedy that the Wit of Man could deviſe, was to mix and compound theſe Forms; as for inſtance, ſometimes a Monarchy with an Ariſtocracy, or in other Words, ſetting up a King and Nobility, which ſeems to have been the original Government of *Rome*, and is at this Day that of *Poland*, which is at once a Republic and a Monarchy, and differs from the State of *Venice* in this, that the King has not only the Title, but many of the Prerogatives of a Prince; whereas the Duke of *Venice* has few or none. Sometimes an Ariſtocracy and Democracy were joined together, of which various Inſtances occur in ancient Hiſtory; for ſuch at ſome times were the *Athenians*, and ſuch were the *Carthaginians* almoſt always. The Republic of *Holland*, when without a Stadtholder, is of this Nature; as are moſt of the Seven Provinces diſtinctly conſidered, and ſome of the Cantons of *Switzerland*: But others again, ſuch as *Baſil* particularly, are pure Democracies; and the ſame may be ſaid of moſt of the free Cities in the Empire. Sometimes all the three Forms were blended together, as in the *Lacedemonian* State, where there were two hereditary Kings at a Time; a Senate, which repreſented an Ariſtocracy; and the *Ephori*, who were Magiſtrates choſen by the People. So again the *Roman* Republic, in which the Conſuls in ſome meaſure, and the Dictators much more, had the State of Princes; the Nobility compoſed the Senate; and the People had their Aſſemblies: and as the conſtant Guardians of their Rights, Magiſtrates of their own Appointment, called Tribunes. This kind of Mixture ſeems to obtain at this Day in *Sweden*, where tho' the Adminiſtration of Affairs is in the King and Senate, yet the laſt Reſort is in the Dyet; to which Deputies are admitted from the Clergy, the Citizens, and the People.

We muſt readily grant, that theſe compounded Forms of Government have, generally ſpeaking, ſome conſiderable Advantages over the ſimple or original Forms, as they ſpread the Baſis or Foundation of the Conſtitution wider, and make it conſequently more firm: As they draw to themſelves the principal Conveniencies of every Form, ſuch as the Luſtre of a Court, the Grandeur of Nobility, the Eaſe and Freedom of the People; as they are better guarded againſt the common Misfortune of every Form of Government, one Part of the Conſtitution ballancing the other; or if it be more complicated, the Strength and Authority of two Branches being united againſt the third, if the Members thereof ſhould exceed the Bounds of their allotted Power, to the Prejudice of the other Parts of the State. In conſequence of theſe Advantages, mixt Governments generally increaſe in a regular Manner, and by ſlow and ſure Steps, the Benefits they receive from ſuch Augmentations are not partial, but univerſal; ſo that it is not the King or the Nobles barely, that are benefited by ſuch an Augmentation, but the Commonwealth in general; and every Member of the Body Politic being properly and proportionably nouriſhed, the whole grows up equally, and conſequently acquires the greater Strength. This enables it to reſiſt with greater Force, either the Weight of foreign Invaſions, or the Struggles of domeſtic Seditions; and this is the true Cauſe why mixt Governments are ſo laſting, and often recover their old, ſometimes more than their old Strength, even when the wiſeſt and moſt penetrating Judges think them on the point of Ruin from their ſeeming Decay. Thus the Kingdom of *Sweden* delivered itſelf from its fatal Conjunction with *Denmark*, and by another bold Stroke, prevented that Country from becoming a Province to *Poland*. Thus the *Portugueſe*, when all the World concluded they were undone, threw off the Yoke at once, and by ſetting the Duke of *Braganza* upon the Throne, revived the Phœnix of their ancient Conſtitution from its own Aſhes. Thus the States of the *United Provinces* in 1672, recovered when at the laſt Gaſp, by reviving their old Conſtitution; and this with the like Succeſs they have again practiſed in 1747; ſo that we may ſafely affirm, that mixt Governments are the moſt permanent, and enjoy their vital Principles longer than any other.

But if we ſhould add to this, that ſuch Conſtitutions are free from all Inconveniencies, we ſhould miſlead the Reader, by affirming a moſt notorious Falſhood. For as they are compoſed of the original Forms, and reap many Benefits from

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that Compoſition, ſo they ſtand expoſed likewiſe to the Inconveniencies attending each of theſe Forms, and ſooner or later feel every one of them in their Turns; as for inſtance, the Hiſtory of *Sparta*, excluſive of foreign Wars, contains very little elſe than the Struggles of one Part of the Conſtitution againſt the other; for ſometimes the Kings laid very deep Deſigns for introducing arbitrary Power; ſometimes the Nobility practiſed againſt their Kings, and either brought them to violent Ends, or forced them into Baniſhment: and at laſt the *Ephori*, under colour of promoting Liberty, weakened the Foundations of the State to ſuch a Degree, that it ſunk into Anarchy, and never recovered its former Luſtre. The *Romans*, who copied that Conſtitution in theirs, met with the ſame Fate; ſometimes from a Jealouſy of their firſt Magiſtrates, they increaſed their Number, and inſtead of two would have ten; which ſo far from preventing, haſtened the Evil, and brought upon them at once, what perhaps they had otherwiſe never felt. The Struggles between the Nobility and the Commons laſted through a long Courſe of Years; ſometimes the former drove the latter to Deſpair; ſometimes the latter brought the moſt diſtinguiſhed of the former to ignominious Deaths, or forced them into Exile. The Tribunes, created purpoſely to prevent Confuſion, were almoſt always the Authors of it; and thus the Power of the Nobility being broken by that of the People, made way for the perpetual Dictatorſhip, until at laſt, all Parties agreed to repoſe the Power of the Commonwealth on a ſingle Perſon, when the Conſtitution was too weak to ſuſtain it according to the ancient Forms.

If we were to examine the mixt Governments of later Times, we ſhould find the Gradations much the ſame; for in moſt of them whenever a Prince ariſes of tolerable Abilities and great Ambition, he ſeldom fails of drawing into his Party many of the Nobility, and laying hold of ſome convenient Opportunity, ſpringing either from foreign Wars, or domeſtic Commotions, procures an Army ſufficient to awe the People, and to protect his Inſtruments from the Puniſhments they might otherwiſe meet with, from encroaching on the Conſtitution. In the Reigns of weak Princes again, Factions ariſe amongſt the Nobility, and ſome great and reſtleſs Spirits by ſucceſsful Struggles through Diſturbances of their own creating, triumph over their Adverſaries, and raiſe up a ſhort-lived Power, deſtructive perhaps to themſelves, but always to their Families. When by ſuch Factions and Cabals, the Nobles have in one Age broken and deſtroyed their Power

by ſtriving againſt each other, and thereby deprived their Prince of his natural Support; the People, who have been all along Gainers by ſuch Conteſts, in the next Age begin to find their own Strength, and taking ſome of the poorer and more diſcontented of the Nobles for their Heads, aim at Innovations in their turns, till after a Series of Revolutions, by which their Power is likewiſe broken, and their Wealth exhauſted; like the Sea after a Storm, the Commonwealth grows once more calm, and all Ranks of People concur in their Endeavours, to replace and reſtore what in their Madneſs they had broken and deſtroyed; and in this perhaps they ſucceed once or twice; but Bodies Politic, like natural Bodies, are much worn by ſuch kind of violent Diſtempers, ſo that a Repetition of them is equally fatal to both, notwithſtanding the original Strength and Soundneſs of either.

As this Account of the Changes and Alterations that happen in moſt mixt Governments, is drawn entirely from the Conſideration of what has really happened, ſo the intelligent Reader, from the attentive Conſideration of it, will very eaſily perceive, that the Power, the Wealth, the Happineſs of a People, inſtead of depending, as is commonly believed, on the Form of their Government, leans in reality much more upon the Adminiſtration of the Government, let the Form of it be what it will. For it may with great Truth be affirmed, that there is none of the Forms either ſimple or compound, the corrupted Forms only excepted, which may not be ſo adminiſtered as to ſecure the Welfare of the Society. For in an abſolute Monarchy, where either the Prince is himſelf bleſſed with great Endowments, or allows a Miniſter to govern in his Name who has thoſe Qualities, the whole Extent of his Dominion feels the ſalutary Effects, and this is preſently attributed to the Nature of the Government, tho' it proceeds, in fact, from the Talents of a ſingle Perſon, or of a few wiſe and able Miniſters. It is the ſame thing in a limited Government; if a King is content with that Share of Power aſſigned him by the Laws, or has Wiſdom enough to conceal the Methods he takes to enlarge his Power; and if he employs in their ſeveral Stations ſuch of the Nobility as are moſt capable of ſerving the Public, while they out of a juſt Regard to their Prince and the Commonwealth, ſhew ſuch a Tenderneſs for the Privileges of the People, as by preventing Diſputes, keeps the whole Machine of Government in a conſtant and regular Motion. This too will be attributed by the great Vulgar, and the ſmall, to the Excellence of the Conſtitution, and it will be left to Poſterity to

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diſcover that it was in reality owing to a right Diſpoſition in the great Men that lived in thoſe Times. Laſtly, the Caſe is the ſame in Republics, where almoſt all depends upon the Prudence and Integrity of thoſe who govern; for theſe Men knowing by Experience both the Force and the Feebleneſs of the Conſtitution, will always take care, that the former ſhall appear to their Subjects in the fulleſt Light, and will hide the latter as much as they can.

It would be tedious, and perhaps unneceſſary to enter into the Detail of the true Reaſons why in all Hiſtories, in moſt political Diſcourſes, and in many of the beſt Memoirs that are extant, ſo much is attributed to the Conſtitution, and ſo little to thoſe who adminiſter it. But of this, the moſt potent and vigorous Cauſe is that Spirit of Envy and Detraction which too generally prevails, and inclines the greateſt Part of Writers rather to commend Governments than Governors. This however is extremely detrimental to Mankind, inaſmuch as it deprives of their juſt Reward thoſe who have been the greateſt Benefactors to their Country, and robs Poſterity of that Benefit which otherwiſe they might enjoy, from the ſetting in a full and true Light ſuch illuſtrious Examples. But we muſt have a care of ſuppoſing from hence, that there is little or nothing due to Conſtitutions, and thereby loſe our Reverence for them; for this would be running into the contrary, and yet no leſs dangerous Extreme. For Experience will ſhew us, that the wiſeſt and beſt Princes, the ableſt and moſt prudent Stateſmen, have always ſhewn the greateſt Regard for the Conſtitution of their Country, and have been of all others the moſt careful to preſerve and to tranſmit it entire and unhurt, to their Succeſſors. Such Men will ſometimes repair, but very ſeldom or never, unleſs compelled by abſolute Neceſſity, alter or change it. To ſay the Truth, the greateſt Excellency of a Conſtitution, which at the ſame time is the great Secret of it, is the concealed and hidden Power it has of recovering and reſtoring itſelf, when either by the Error of Governors, a Concatenation of untoward Accidents, or the reſtleſs Spirit of its Subjects, it has been thrown into Confuſion. This is chiefly diſcerned in mixt Governments, where either from the Sagacity of the firſt Contrivers, or from a lucky Concurrence of Incidents, the Frame is ſo conſtituted, as when ſeemingly in danger of breaking by a ſudden and ſomewhat violent Spring, to reſettle and reſtore itſelf. In proceſs of Time indeed, and by repeated Experiments of this kind, the Spring is weakened, and by degrees loſes its Force; but ſtill it is a great Happi-

neſs where the Conſtitution has originally this internal Efficacy, and thoſe penetrating Patriots who can ſee and obſerve it, derive from thence thoſe Hopes that often contribute to aſſiſt this Operation, and to ſave a ſinking State, even againſt the Expectation of the Generality of its Subjects.

To conclude, as the great End of all Government is the Happineſs of thoſe that live under it, ſo it is certain, that the only ſolid Foundation of this Happineſs muſt be laid in the Wiſdom and Probity of the Governors. Hence it comes to paſs that the Education of Princes is a thing of ſuch high Importance to the Welfare of a State; that the raiſing Men of Capacity and Honeſty to great Employments, is alſo ſo eſſentially requiſite; and hence above all, ariſes the Neceſſity of a general Prevalence of public Spirit through all Ranks and Degrees of Men. With theſe there is no Form of Government, either ſimple or mixt, that may not laſt long and appear with Luſtre; but without theſe, no Conſtitution can poſſibly ſecure the Peace and Welfare of a People. A large Patrimony cannot preſerve a Spendthrift from Want; nor will any Eſtate, how well ſettled ſoever, reſiſt for a Continuance a Spirit of Diſſipation. It is the ſame thing with reſpect to the Public; as Virtue declines, and Corruption prevails, the Strength of the State is weakened and impaired; and tho' the outward Forms of the Conſtitution may remain long, as ſome look well in the Face even to the laſt Period of a Conſumption; yet Effects will follow their Cauſes, and a profligate People muſt as neceſſarily ſink into Slavery and Diſtreſs, as a debauched Perſon into Want and Miſery.

CHAP.

CHAP. III.

There is no Footſtep in Hiſtory of any abſolute Monarchy eſtabliſhed in this Iſland; the ancient Britons *were a free People, governed by Princes, who had a limited Authority; the* Saxons *were alſo a free People; the Nature of their great Councils, and the Manner of making and enforcing Laws, with the Changes that happened during their Poſſeſſion of this Country; the* Danes *more barbarous than the* Saxons, *but a free People notwithſtanding; the Alterations made by the* Normans, *always conſidered as Grievances, and by Degrees were reformed, and taken away by Authority of Parliament.*

IT is generally ſaid, and indeed not without Reaſon, that the Accounts we have of the ancient *Britons* are very barren, and not much to be depended upon. This however is true only in an hiſtorical Senſe, that is to ſay, it would be a very difficult, if not impracticable thing, to collect and to digeſt into tolerable Order the Story of the ancient *Britons*; but with regard to the Point which we are to conſider, there are not either Materials or Authorities wanting. We have *Gildas*, an ancient *Britiſh* Writer, and long before him we have the Writings of *Cæſar* and *Tacitus*; and from theſe we are able to collect ſome tolerable Account of the Nature of their Government. They were divided into ſeveral Principalities, which were ſo many diſtinct Eſtates, in the ruling of which, Princes were directed by general Councils, called in their Language *Kifrithin*, which has very near the ſame Signification with our Word *Parliament*. The Members of theſe ancient *Britiſh* Councils were, the Princes, their Sons, the Edlins of princely or noble Race, the Druids, their Prieſts and Lawyers, and the Governors of the People; all met in Council armed, except the Druids, who, from their Function, were exempted from Service in the Wars. Young Men they did not admit till they were eſteemed of Ability of Mind and Body, to be fit for Council and War; and then the Preſident in Council delivered to ſuch young Man a Spear or Partiſan, from which time he was a Member of the Commonwealth, and fit to be appointed or choſen to Council, Governor of the People of a Village or Diſtrict, or a Leader in their Armies. In theſe general Councils, all Matters were propoſed by the Prince, and

were then explained and debated upon by the Druids; laſt of all, the Point was decided by all the Members by clattering their Spears together if they approved, or by ſtriking them upon the Ground with a rude Noiſe if they diſapproved the Motion.

In theſe ſeveral Councils the *Britiſh* Laws were made for maintaining Peace, and preſerving Property, and the Execution of them committed to the Druids, who were Judges in all Caſes ſacred or civil. Theſe Laws were carried from the Council in the Memories of the Druids, for it was then ſtrictly *Lex non Scripta*; and ſuch as inclined to learn the Laws went to the Schools of the Druids, where by frequent Repetitions, they imprinted them in the Memory of their Pupils. In reference to ordinary Juriſdiction, the Street or Village-Court, was held every Month, in which the Druids preſided, and if any Man diſobeyed their Decrees, he was excluded from their Sacrifices. When the *Romans* invaded *Britain* under *Julius Cæſar*, the Princes met together in a great Council, and choſe *Caſſavalaen* to be their Commander in Chief. When *Claudius* afterwards came hither on the ſame Errand, the *Britons* were divided amongſt themſelves, as *Tacitus* tells us, and ſo became an eaſy Prey; and it is remarkable, that the ſame Author, ſpeaking of the *Germans* and *Gauls*, from whom all agree that the *Britons* derived their political Notions, ſays, that amongſt them ſmaller Matters were left to the Deciſion of their Princes, but things of greater Moment were conſulted of by all, that is, were debated in general Aſſemblies.

While the *Romans* continued in *Britain* theſe Councils ceaſed, but the *Britons* were permitted to hold their Village-Courts for the Conveniency of the People. But when the *Romans* withdrew and deſerted the Iſland, the *Britiſh* Princes reſumed their Authority, and their ancient Manner of Government, as appears by their Conduct when they were invaded by the *Picts* and *Scots*; for then they called a general Council, in which they choſe *Vortiger* for their Chief; and this Meaſure not proving ſucceſsful, they directed him to invite over the *Saxons*, which he did. But theſe Auxiliaries ſoon turned their Swords upon their Friends, and in the Space of about fifty Years, drove the *Britons* into the mountainous Parts of the Iſland, and took Poſſeſſion of the reſt of the Country themſelves. When the Wars were pretty well over, and they began to form regular Principalities, we find that the ſame Model of Government prevailed; and theſe great Councils were held by every one of the *Saxon* Kings, for making Laws and

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other important Purpoſes of Government, which Councils were by them ſtiled *Witenagemote*, the Members of which they were compoſed *Wita's*, that is, Sages, and their Acts *Geradniſſe*, or wiſe Laws; ſo that here the Reader ſees plainly, that our *Engliſh* Anceſtors were as far removed from being Slaves as the ancient *Britons*, of whom the Hiſtorian *Dion Caſſius* in the Life of the Emperor *Severus* ſays, that amongſt them the People always retained the ſupreme Power.

It may ſeem ſtrange, that after conquering the *Britons*, the *Saxons* ſhould take up their Form of Government; but this will be no difficult thing to conceive, when we conſider that the ſeveral Chiefs among the *Saxons*, were ſo many joint Undertakers in their Expedition againſt *Britain*; and that their Commander in Chief was only the firſt Man amongſt his Equals by their Conſent; when therefore he aſſumed the Title of King, thoſe Chiefs became his Collegues, were termed *Thegnes* or *Thanes*, and in *Latin*, *Capitanei*, from their having a Capital Right in the *Britons* Lands. Theſe Collegues and their Deſcendents were thoſe *Saxon* Nobles who were the Members of the great Councils, the Suiters of the Court of the Grand-Seignory of the Kingdom, all Nobility at that Time ariſing from Poſſeſſion. The *Saxon Capitanei* in their Portions of Land held Courts, and judged their Vaſſals, and after the manner of the *Britons*, were petty Princes in their own Territories, and obliged the Kings to ſwear to adminiſter equal Right to all, and to be obedient to all Laws made and agreed to in general Council. *Æthelbert* the firſt Chriſtian *Saxon* King, was alſo their firſt Legiſlator, and made his Code of Laws in Witenagemote, by and with the Advice of the Wita's; in which Code was inſerted all that could be recovered, or was judged uſeful and valuable in the *Britiſh* Laws, which ſhews the great Antiquity of our Conſtitution, how long our Liberties have been preſerved, and by what means.

All the ſubſequent Legiſlators among the *Saxons*, for there were many of them, and amongſt the reſt *Alfred* the Great, a Prince whoſe Valour, Wiſdom and Goodneſs, did real Honour to his Station, proceeded ſteadily in the ſame Track, and uſed their utmoſt Endeavours to ſecure and fortify that admirable Conſtitution, by which equal Juſtice was done to Men of every Degree. The Laws made by theſe Princes were very ſhort and plain, and the County-Courts, and other inferior Juriſdictions, kept the People in very good Order; ſo that their Dominions became very populous, the Happineſs of their Subjects was very great, and would have been

been ſtill greater, but for the repeated Invaſions of the *Danes*, who at length got footing in this Iſland to ſuch a Degree, that notwithſtanding all the great Qualities of *Alfred*, he was forced to allow them to fix themſelves in a Part of the Country, where they lived under Laws of their own; but Laws that were approved and conſented to by King *Alfred*, to whom their Princes did Homage. It is by no means my Deſign to meddle with the *Engliſh* Hiſtory, but barely to give a Sketch of the Hiſtory of the *Engliſh* Conſtitution, that it may clearly appear, that the Subjects of this Kingdom who had Property, were always free; for this Reaſon I ſhall ſay nothing of the Struggles between the *Engliſh* and the *Danes*, but ſhall content myſelf with obſerving, that when the latter had eſtabliſhed their Conqueſt, they were content as well as the *Saxons*, to eſtabliſh the old Form of Government, and even to extend and improve it.

Canutus, almoſt the only Sovereign we had of that Nation, framed a Body of Laws at *Winchester*, at the *Chriſtmas* Feſtival, *Anno Domini* 1036; in the Preface of which it is ſaid, "this is the Law which *Cnute* King of all *England*, "*Denmark* and *Norway*, hath ordained, with the Conſent of "his wiſe Men, as well for the Maintenance of his own Dig-"nity, as for the Benefit of his People." Before this Time all Criminals might redeem themſelves, by paying Money to their King, their Lords, or the Perſon injured; but by his Laws, breaking into Houſes, in the manner now called Burglary, open Robbery, malicious or wilful Murder, and betraying one's Lord, were declared capital Crimes, and not to be commuted by pecuniary Mulcts.

Edward the Confeſſor, that great and good Legiſlator, reigned in the Hearts of his People; and the Harmony between him and the great Council of the Nation, produced ſo great Happineſs, as to be the Meaſure of the People's Deſires in all ſucceeding Reigns. This King's Code of Laws was called *Lex Angliæ*, and ſometimes *Lex Terræ*, being a Collection of the beſt of the *Mercian*, *Weſt-Saxon*, and *Daniſh* Laws, and King *Edgar*'s Laws. Amongſt other Advantages it had this, that whereas before his Reign, different Parts of the Kingdom were governed by thoſe three Laws firſt abovementioned, which tho' they agreed pretty well in the Subſtance, yet contained diſtinct Penalties for Offences; the whole was now put under one Form, from whence grew the Term of Common-Law; and it was this Sort of Government, together with the Liberties and Privileges derived from it, that the Barons in the firſt *Norman* Reigns inceſſantly contend-

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ed to recover, as infinitely preferable in itſelf to that, which in conformity to the *Cuſtom* of their own Country the *Norman* Kings laboured to eſtabliſh.

In the time of the *Saxon* Kings, great Councils were held at the three principal Feſtivals of *Chriſtmas*, *Eaſter* and *Whitſuntide*, and from thence they were called Courts *de More*. In theſe the State of the Nation was weighed and conſidered, old Laws amended or repealed, and new ones made. Theſe were alſo the ſupreme Courts of Judicature, where the King with his Nobles heard and determined Appeals from inferior Courts of Juſtice. *William* the *Conqueror*, at his Coronation, ſwore he would preſerve the *Engliſh* Conſtitution; he likewiſe appointed Commiſſioners to enquire in every Country, and make Report what were the Laws and Cuſtoms in King *Edward*'s time, and from theſe Laws he compiled his own Code in the fourth Year of his Reign. He not only held the Courts *de More* as his Predeceſſors had done, but fixed the times of his Reſidence, ſo as to be at the Palace of *Gloucester* at *Chriſtmas*, at *Winchester* on the *Eaſter* Feſtival, and on *Whitſuntide* at *Weſtminſter*; at all which Times and Places, his Barons and Tenants *in capite* attended in courſe. As to the civil Rights of the People, he left them as he found them, to be heard and determined in the Court Baron, Hundred, and County Courts according to ancient Uſage.

In the laſt Year of his Reign he made another Code of Laws very different from the former, and which wrought a conſiderable Change in the Conſtitution. By this Law he ſettled his Militia in ſuch a manner, as to have always above ſixty thouſand Knights or Horſemen ready to ſerve him upon any Occaſion. To make the Support of his Government their Intereſt, he conſented that the Grants of their Lands ſhould become hereditary to them and their Heirs, upon Condition of Service, Faith and Obedience, and that nothing ſhould be demanded of them farther than their Service; he alſo provided, that their Tenants ſhould pay them due Rents and Services according to Cuſtom and Contract, to enable thoſe Knights to perform their Services to the King; and for the Encouragement of theſe Sockmen, as they were called, it was ordained, that as long as they paid their Rents, and performed their Services to their Lords, they ſhould not be turned out of their Farms, which brought this kind of Sockage Tenure into ſome degree of Certainty and Freedom.

His Son *William Rufus* ſwore to keep the old Laws o *England*, but kept them not; Law lay aſleep in his Time, he governed according to his own Will, and the Love of Money governed him. *Henry* I. was elected by the Clergy and Nobles; he confirmed the Laws of King *Edward*, held the Courts *de More*, and was a tolerable Prince. King *Stephen* was alſo elected, he took an Oath to govern according to the Law, but broke it the greateſt Part of his Reign, in the latter Part of which, however, he was a great Reformer, and ſoon after he grew good he died. King *Henry* II. redreſſed many Grievances, and the Laws by which he governed were made in Parliament; he had great Struggles with the Clergy, who endeavoured to render themſelves independent, and it was with much Difficulty he kept them ſo much within the Bounds of their Duty as he did. *Richard* I. was a very arbitrary Monarch, and raiſed vaſt Sums upon his Subjects, not only without but againſt Law. His Brother *John* followed his Steps, till he threw the Nation into a civil War, by which he was obliged to grant *Magna Charta*, or the Great Charter, or Charter of Liberties, and the Charter of the Foreſts, by which the Barons obtained ſo great Power to themſelves, as in a great meaſure changed the Conſtitution from a Monarchy to an Ariſtocracy. The Diſputes about this Charter often renewed, and as often cancelled, kept the whole Nation in Confuſion during this and the next Reign of *Henry* III. out of which it was recovered by his Son.

Edward I. may be truly ſtiled the *Engliſh Juſtinian*, both Statute Law and Common Law obtained a great Perfection in his Time; to his Reign is juſtly aſcribed the Honour of eſtabliſhing methodical Proceedings in adminiſtering Juſtice between Man and Man, for Pleadings, Reſolutions and Deciſions grew regular and rational; good Laws he offered to his Parliaments for their Confirmation and Conſent, and when they paſſed into Laws, he made Choice of learned and upright Judges to put them in Execution: Prudently without Noiſe, and by gentle Steps and Degrees, he abrogated many bad and inconvenient Cuſtoms and Uſages, both in the Superior Courts, and in the Courts of the great Men, and ſubſtituted ſuch regular Methods, as by length of Time and Experience had of their Aptneſs and Convenience, have ſtood and been uſed ever ſince without any great Alteration, and are now, ſays the learned Chief Juſtice *Hale*, as it were, incorporated into and become a Part of the Common Law of *England*. The old *Saxon* and *Norman* Statutes of his Predeceſſors

Predeceſſors were ſhort, poſitive Inſtitutions to correct, and by Mulcts to puniſh the Vices and Crimes that were prevailing at the time of their making, and many of the Methods of putting them in Execution local, differing in one Place from what they were in another; but in this King's Time, the Sun-ſhine of Reaſon and Uniformity broke forth into great Luſtre. In his Time likewiſe the Law was ſo much mended and altered, that the old Coat was but juſt perceivable under the ſeveral new Pieces ſet upon it by his learned Improvers of the Law. The Statute Laws, though ſhort in Compariſon with later Acts of Parliament, yet were very clear, and fully expreſſive of the Senſe of the Legiſlators.

It was by this Prince alſo, that Parliaments were brought into that Order in which we ſee them, and that Knights, Citizens and Burgeſſes were made eſſential Parts of this Aſſembly. His Son *Edward* II. acted a Part very different from that of his Father, which after drawing many Misfortunes upon his Subjects, brought the heavieſt of all upon himſelf, being depoſed and murdered through the Prevalence of that corrupt and factious Spirit, which he had but too much encouraged. His Son *Edward* III. was in every reſpect a great and glorious Prince; he made the Enemies of this Nation feel the Weight of that Power which he derived from the Confidence and Affection of his Subjects; but his Grandſon *Richard* II. like his Great Grandfather, made his Minions his Miniſters, and by endeavouring to extend his Royal Prerogative, loſt his Regal Dignity, and was ſoon after cruelly and baſely murdered.

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inexpedient for them to continue their old Quarrels with the Crown in the manner they had hitherto done, and therefore they took another Method; and during the Diſputes between the Houſes of *York* and *Lancaſter*, made uſe of the Cloak of Loyalty to cover their Ambition, ſiding now with one Prince, and then with another, as would beſt ſerve their turns, of which the Reader will find indubitable Proofs in the *Engliſh* Hiſtory during that unhappy Period, in which Multitudes of brave and honeſt Men fell Sacrifices to the deluſive Artifices of the Ambitious.

But when King *Henry* VII. came to be fixed upon the Throne, he ſaw and reſolved to remove this Danger. He is generally looked upon to be one of our wiſeſt Princes, and I think the moſt extraordinary Proof he gave of his Wiſdom was, the Method he took in letting down the Nobility; for ſeeing that Luxury began to prevail, he opened a Paſſage by Law, for the Nobility to diſpoſe of their Eſtates; and this being once done, the Commons ſoon became much more conſiderable, by acquiring Property in Land, which before they had little Opportunity of doing; and this no doubt was a great Encouragement to Induſtry, and a general Benefit to the Nation. His Son *Henry* VIII. was accidentally, tho' not intentionally a Friend to Liberty. He demoliſhed in a great meaſure the exorbitant Power, and ſpread abroad the exceſſive Wealth of the Church; he was a Prince of great Abilities, and therefore loved, encouraged and employed Men of Abilities; and the ſame Rule prevailed with his whole Family, and was one of the principal Cauſes of the Felicities of Queen *Elizabeth*'s Government, which makes ſo great and glorious a Figure in our Hiſtories. By this means the Foundation was laid for that extenſive Liberty which has been ſince acquired, and is now enjoyed under a Government, which when well adminiſtered, is without doubt one of the beſt conſtituted that ever prevailed in any Age or Country, and which can never be ſubverted, but by the Abuſe of that Liberty which is its greateſt Grace and Glory.

I call it the beſt conſtituted, becauſe I know of none either ancient or modern, that ever admitted ſo much Freedom. Other Governments, more eſpecially Republics, may pretend to more; but in reality, no Government either has or ever had ſo much; and as for thoſe Republics that ſubſiſt at preſent, they cannot enter into any Degree of Compariſon with it; for they are all built upon much narrower Bottoms, and conſequently are ſo inſecure, that ſuch as adminiſter the Government are in a perpetual State of Jealouſy

louſy and Apprehenſion; whereas here the Benefits of a free Government are ſo widely, I was going to ſay univerſally extended, that it is every Man's Intereſt, and every Man of common Senſe muſt ſee that it is his Intereſt, to preſerve this Form to the utmoſt of his Power. Fear in thoſe who adminiſter a Government is productive of the worſt Conſequences, more eſpecially Severity; but this loſes its Nature when lodged in the Breaſts of the People, and becomes Loyalty to the Conſtitution, of all others the nobleſt kind of public Spirit. This, tho' they never had ſo great Cauſe, was highly conſpicuous in the *Spartans*, *Athenians*, *Romans*, and other free Nations of Antiquity; it has been no leſs conſpicuous here, and it is hoped it ever will be ſo, in regard to the ſuperior Excellency of that Government which both deſerves and promotes it; a ſuccinct Deſcription of which, that the riſing Generation may have ſome Notion of their Duty in this reſpect, we ſhall in the next Chapter endeavour to ſet forth.

CHAP. IV.

Of the Structure and Excellency of the Britiſh *Conſtitution; the Nature of the Regal Dignity, the Fulneſs of the Prerogative, and the Reaſonableneſs of its Limits; the Dignity, Privileges, and Splendor of the Nobility, and the Uſefulneſs of their Situation to the State; the Freedom and happy Condition of the* Britiſh *People, the Nature and Value of their Immunities, and the Security they have for their Liberties. Of the Independency of the ſeveral Eſtates in the Exerciſe of their reſpective Rights, and how this is perfectly reconcileable to the Connection of the ſeveral Parts of the Conſtitution.*

THERE is ſomething extremely natural, and [illegible] nothing blameable in that very high Opinion which prevails amongſt moſt Nations, in favour not only of the Country, and the Produce of the Country which they inhabit, but of its Government alſo; and it is generally thought, that the People of *Great Britain* have their full Share of this kind of national Vanity. Yet when we attentively conſider how beautiful and how regular a Structure that of the *Britiſh* Government is, and withal, how agreeable, and how commodious; we ſhall rather incline to believe, that

People

People would admire it more if they underſtood it better, than that they are over-fond of it becauſe they poſſeſs it. The Truth of the Matter is, that ſuch as value themſelves on their ſuperior Underſtandings, and would be thought the beſt Judges of theſe Matters, are ſo far from being partial on this Head, that they are very apt to find fault with, and to expreſs their Deſire of ſeeing Alterations made in the Government; ſo that it is only the ordinary Sort of People that are chargeable with this Weakneſs of being warmly attached to a Conſtitution, which nevertheleſs they are far from comprehending. Upon this I beg leave to remark, that particular Perſons have not only particular Notions, but particular Views, and that their Criticiſms upon Forms of Government ariſe too often from thoſe Circumſtances; but it is otherwiſe with the Bulk of the Nation, who judge of the Government they live under, not from what they know, but from what they *feel*; and therefore when they eſteem themſelves happy, it is for this ſimple Reaſon only, becauſe they are ſo. Wiſe Men will not liſten to the Voice of the Nation, when they cry out for Change; but I will venture to lay it down as a political Maxim beyond Contradiction, that the Voice of a Nation ought always to be liſtened to when it is againſt Change. For the great End of Government is to make its Subjects happy, and the only Way we have to know when People are happy, is to obſerve whether they are content; for tho' it is very certain that they may be diſcontented without Reaſon, yet the contrary is far from being true, for they are never content, or can be ſo, without a Cauſe.

In order to be ſatisfied of this, we will examine into Particulars. We have already ſhewn that the Conſtitution of this Kingdom is of great Antiquity, and that it always was in a great meaſure what it ſtill is, a mixt Government; we have likewiſe ſhewn, that till the coming of the *Normans* there were few or no Innovations, and that when theſe were made by the Princes of that Line, they produced perpetual [illegible]otions. We have obſerved that *Edward* I. might be [illegible]ed the *Norman* Legiſlator, and the Father of the People's Liberties; for tho' it may be proved that the Commons ſent Repreſentatives to Parliament before his Time, and tho' there are ſome Footſteps of the like even under the *Saxon* Kings, yet he it was, that in the eighteenth Year of his Reign ſettled that regular Form which has ſince continued. We have hinted that *Henry* VII. opened the Way for the Commons to obtain Property, which they have very well improved ſince; and that *Henry* VIII. demoliſhed the Uſur-

Uſurpation of the *Pope*, and that kind of Church-Independency which was altogether incompatible with the other Parts of the Government. Whatever Difficulties there were beſides, were removed in ſucceeding Times; and tho' they might be removed with Violence, yet it is a Violence of which we reap the Benefit, and find ourſelves in full Poſſeſſion of that good old *Saxon* Conſtitution with which our Anceſtors were ſo much in love, together with many, and thoſe very conſiderable Improvements all made in a legal Manner, and of which nothing but our Madneſs and the fatal Effects of our univerſal Corruption can poſſibly deprive us; ſo well and wiſely is the preſent Conſtitution put together.

The Monarchy is indeed limited, but limited in ſuch a manner, that the King may be abſolute if he pleaſes, by doing what is right. He has not the Enſigns, Pomp and Splendor of the regal Dignity only, but the eſſential Rights alſo. The Adminiſtration of Affairs is wholly in him, he chuſes what Miniſters he pleaſes, and it is thoſe Miniſters, not himſelf, that are accountable for the Adminiſtration. He is the Fountain of Honour, and the Militia is likewiſe in him. He has the ſole Power of making Peace and War, he coins Money, and, in a word, he does every thing that a good Monarch would wiſh to do. Yet his Power is not either burdenſome, or terrible to his People; on the contrary, his very Prerogatives are favourable to the Nation's Liberties; and it might be demonſtrated, that they would be leſs free if they were more limited, which is an Excellency never reached in any other Monarchy ancient or modern; ſo that as on the one hand a *Britiſh* King has no Temptation to break in upon the Conſtitution, his Subjects on the other have not the leaſt Reaſon to wiſh or deſire that the Circle of his Power ſhould be more reſtrained.

As the King is ſupreme in all Cauſes, Eccleſiaſtical as well as Civil, ſo this is without the leaſt Prejudice either to the Church or State. The Religion by Law eſtabliſhed, is the Chriſtian Faith in great Purity; and the Archbiſhops, Biſhops have ſuch a meaſure of Authority, and ſuch a [illegible] tion of Revenue, as is ſuitable to their Dignities, and con[illegible] ſtent with their Functions. Order and Decency are thoroughly provided for, and yet Perſecution is provided againſt. The Clergy have all that they can wiſh, but the Dominion over Conſciences is very wiſely reſerved to him to whom it belongs, that Supreme Being to whom every Man is accountable, and to whom alone he ought to account.

Such as diſſent from the eſtabliſhed Religion, have the full Liberty of worſhipping him according to their Conſciences, and the State interpoſes no farther therein than is neceſſary to ſecure that Liberty, and to prevent Bigots of all Religions from perſecuting each other. So that wiſe and moderate Men have nothing to wiſh in this reſpect, but that things may always continue in this Condition, and that the Spirit of Religion may ſhew itſelf in Zeal for good Works, rather than in Heats about Opinion.

The Nobility of *Great Britain* have all the Power and Splendor that is conſiſtent either with the Safety of others or their own; they are the King's hereditary Counſellors, they make one of the three Eſtates in Conjunction with the Lords Spiritual, and with them are Judges in the laſt Reſort of all that has been done in any of the Courts below; they enjoy all their ancient Privileges, and ſome new ones, particularly that of being tried by their Peers in general, and not by ſuch only as the Crown ſhall think fit to commiſſion; and if they have not ſo great Authority as their Predeceſſors the Barons had, yet their Condition is infinitely better ſecured than it was in thoſe Days, even by this Diminution of their Authority. Such as conſider only the mere Outſide of things, are apt enough to ſuppoſe, that they have loſt by the Alterations that have been made in the ancient Syſtem; but ſuch as ſee to the Bottom, clearly perceive the contrary. Their Dignity is ſo high, and the Prerogatives annexed to it ſo conſpicuous as well as conſiderable, that it juſtly remains the great Object of Hope, as well as of Reſpect; ſo that it is abſolutely impoſſible, that the Peerage ſhould grow into Contempt, tho' particular Peers may ſink their perſonal Characters by their perſonal Failings; and it is abſolutely neceſſary that it ſhould be ſo amongſt the Nobility of a free State; for if it was not, all thoſe Inconveniencies would be quickly felt that render *Ariſtocracies* odious. In *Poland* for inſtance, the Nobles are a kind of Princes, but then the reſt of the People are very little better than Slaves. At *Venice* their Power is exorbitant, their Inſolence intolerable. In *France* the Nobility are haughty enough, and the common People feel in their turn that ill Treatment the Nobility are expoſed to at Court. But here in *Britain* very little of this is known, and nothing in compariſon is felt; every Man that is free and a good Subject, is ſafe from the Pride or Caprice of Men of Title, and while he is guilty of no Offence towards them, cannot be diſturbed or diſtreſſed by them.

Laſtly.

Laſtly, As to the People in general, they have all the Freedom they can wiſh, and full as large a Share of Power as they can manage. In proportion as they acquired Property, they have acquired alſo a Meaſure of Power proportionable to that Property, no Part of which can be taken even for the public Service but by their own Conſent. In former Times, tho' our Commerce was not ſo great, yet the trading People ſeem to have had a larger Share in that Branch of the Conſtitution which belongs to the Commons than they have now, becauſe they were at liberty to chuſe ſuch as had no Intereſt in Land; whereas now the Houſe of Commons is compoſed entirely of Men who have a landed Intereſt. It is indeed true, that the great Powers of this Houſe have been gradually obtained; but let it be added alſo, that they have been fairly and juſtly obtained, and upon the true Principles of our Conſtitution, which has always lodged more or leſs Power in the ſeveral Degrees of its Subjects, as they have had greater or leſs Intereſt in the common Stock; and in the Nature of things there can be nothing more reaſonable, than that thoſe ſhould have the Care of the public Affairs, who have the largeſt Stake in the public Weal, and conſequently muſt have the greateſt Concern for the public Safety.

The Commons of *Great Britain* are conſidered either in their legiſlative, or in their collective Capacity. In each of theſe they have all the Powers and Privileges that the Wit of Man can deviſe. In reſpect to the former, there is nothing that can be done by the ſupreme Power of the Nation without their Approbation; no new Law can be made, no old one repealed, but by their Voice. No Taxes can be levied, unleſs the Quantity and the Quality be by them ſettled. No Grievance can be felt but what they may redreſs, and of which they muſt be informed; nor is there any Matter ſo great, or Man ſo powerful, as to be beyond the Reach of their Enquiries, or the Force of their Impeachments. The Prerogative itſelf can ſet no Bounds to either. They are the grand Inqueſt of the Nation, and no Power can protect the Guilty from the Purſuit of Juſtice, when managed by them. This is all that ever was pretended to, in the very pureſt *Democracies*, and was even in them much more eaſily eluded or defeated, than is practicable in our Conſtitution.

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reſpective Boroughs. It is true, that Clamours are frequently raiſed of Influence and Corruption, and perhaps thoſe Clamours are not always without Reaſon; but Influence and Corruption are not Horſe, Foot, and Dragoons; no Man's Vote is taken from him by Force; no Man is compelled to betray himſelf or his Ceuntry: ſo that upon the whole, this amounts to no more than that bad Men are induced by bad Means to do bad Things, in Matters which concern themſelves and their Poſterity. Yet even againſt this, almoſt all poſſible Proviſions have been made by Law; but the Miſchief is, that no Law can be deviſed to hinder bad Men, while they remain free, from bartering or ſelling their Freedom; becauſe ſuch a Law would actually deprive them of their Freedom. So that upon the whole, this that is thought the greateſt Blemiſh in our Conſtitution, does the greateſt Honour to it, ſince there is nothing clearer, than that the only Way to enſlave or undo us, is left to ourſelves. The Conſtitution therefore has dealt with us as we are dealt with by our Creator, it has made us as free as in their Nature Man can be; and if ever we are enſlaved or undone, it muſt be our own Act, and Slavery and Ruin muſt be at once both our Choice and our Puniſhment. To ſum up all in a word, every Conſtitution ancient and modern, has done leſs for its Subjects than that of *Great Britain*, nor is it poſſible that any Conſtitution ſhould do more for their Welfare and Safety than this has done.

There remains yet one thing more to be accounted for with reſpect to this Conſtitution, and that is, the Dependency and Independency of its ſeveral Branches, about which ſome Writers have expreſſed themſelves darkly and confuſedly, for want of obſerving a very eaſy, and a very obvious Diſtinction. There is in every Branch of the Conſtitution a ſeparate and characteriſtic Power as well as a legiſlative. In reſpect to the former, each is free and independent: The King exerciſes his Prerogative without Reſtriction: The Houſe of Peers as a ſupreme Judicature, and as the great Council of the Nobles, acts alſo without any other Reſtraint than the Uſage of Parliament puts upon them: The Houſe of Commons do the ſame in reference to all the Points that belong ſtrictly and peculiarly to them. In their legiſlative Capacity ſtrictly conſidered, it is otherwiſe; for there is, I will not call it abſolutely a Dependence, but a neceſſary Connection between all the Branches of the Legiſlature; and this ariſes no otherwiſe than from their Relation to, and the inſeparable Intereſts they have in each other, which perhaps might be more fully and

largely

largely explained, if that Explanation were fit for, or even conſiſtent with a Diſcourſe of this Nature. But from what has been ſaid it is eaſily conceived, that this Connection is no Impeachment of Liberty, ſince it is from their common Concern for Liberty that it ariſes.

But the Bleſſings of this Conſtitution are not barely confined to the happy Diſpoſition of the ſeveral Branches of the Legiſlature; on the contrary, they extend themſelves throughout the whole Scheme of our Policy, and are copied in every Place where any Form of Government, or kind of Juriſdiction prevails; as for inſtance, in every Town Corporate, there is a Mayor, Bailiff, or other Chief Officer, with Aldermen, or Aſſiſtants, and a fixed Repreſentative of the Commonalty. In the Country, the County Court is ſtill held, as are alſo the Courts Leet and Baron; ſo that in this reſpect, we ſtill retain the old *Saxon* Government, or rather, we retain that Form which they borrowed from the *Britons*, and which having ſubſiſted amongſt us with very little or no Alteration for near two thouſand Years, it is not to be wondered that a high Reverence, a ſincere Affection, and an unalterable Attachment for it had been thereby produced, which there is good Reaſon to hope no Art, no Influence, no Practices of any kind will ever be able to efface.

As to the Adminiſtration of Government, or the executive Power of the Conſtitution, it is by Law veſted in the Crown, and is thence diſtributed by Royal Commiſſions to ſuch as are by them impowered to adminiſter Juſtice of every kind to the People; and as thoſe who are thus authorized are bound to reſpect the Laws, and to act in Obedience to them, (for to this, and this only their Commiſſions extend) it is evident that every Act of Male-Adminiſtration is cognizable and puniſhable; and therefore there was no Abſurdity in the old Maxim of our Law, *that the King can do no wrong*, nor is the Maxim in the leaſt repugnant to Liberty, but on the contrary is its beſt and moſt ſolid Foundation: for if Wrong be done, the wrong Doer is to be puniſhed, for this Maxim of the Law having exempted the King, it is evident that no Commiſſion or Warrant whatever can juſtify or excuſe a Perſon who acts in Breach of the Laws. This likewiſe ſhews the Reaſon of another Maxim of equal Antiquity and Force, though not ſo commonly known, *viz. that the King is always a Minor*, that is to ſay, he is ſo conſidered by the Law, and ſhall receive no Prejudice from any Acts into which he may be either miſled or ſurprized; but thoſe who venture to act

under pretence or colour of Powers thus obtained, ſhall bear the Weight of their own Offences, without any regard being ſhewn to that Shadow of Authority, under which they would be thought to have acted. All this will more clearly appear, if we take a ſuccinct View of the ſettled, legal, and regular Method, in which every Part of the Government is actually adminiſtered.

All Acts of State are conſidered, debated, and reſolved in the Privy Council uſually held in the King's Preſence, and always under the Direction of a High Officer of State, ſtiled the Lord Preſident of the Council. All the King's Commands are tranſmitted to his Officers, Civil and Military, by the Secretaries of State; but all Acts of a public Nature, and all Inſtruments of general Concern, paſs the Privy Seal or the Great Seal, and are liable to be ſtay'd at either, till the great Officers intruſted with thoſe Seals are ſatisfied of the Expediency, as well as the Legality of the Contents. The Lord High Chancellor is the firſt great Officer of State, and conſidered in that Capacity, has a very high and extenſive Authority, the Nature of which is deſcribed and defined in moſt Caſes by Acts of Parliament; and as this great Office is uſually executed, either by a Profeſſor of the Law, or one remarkably diſtinguiſhed by his Learning in that Profeſſion, there is ſo much the leſs Danger in his Miniſterial Capacity; and indeed Experience teaches us, that many of our beſt and greateſt Miniſters, and thoſe to whoſe Wiſdom, Prudence and Probity, the Nation has been moſt indebted, have been Chancellors.

But beſides his Office and Function as a Miniſter and great Officer of State, the Lord High Chancellor preſides in the Supreme Court of Equity, where he relieves ſuch as are without Redreſs by the ſtrict Letter of the Law, and thoſe alſo who are diſtreſſed by it; for it is a known and ſettled Principle, that *ſummum Jus eſt ſumma Injuria*, that is, Juſtice ſeverely adminiſtered may become Injuſtice; and therefore this excellent Method has been found for the Eaſe and Benefit as well as Safety of the Subject, by which ſuch artful People are reached, as might cover themſelves from the Law; and honeſt Men are delivered from the Danger they might be in of being over-reached by ſuch Perſons in Law. For the Diſpatch of the vaſt Buſineſs that naturally belongs to this Court, the Chancellor has under him the Maſter of the Rolls and eleven Maſters in Chancery; the former hears Cauſes, but from his Decrees an Appeal lies to the Chancellor; and to the latter, ſuch Things are referred to be ſtated and reported,

ported, as may facilitate the doing juſtice upon a final Hearing.

The Chief Juſtice of *England*, or Chief Juſtice of the King's Bench, according as his Commiſſion runs, preſides in the Court of King's Bench, and has the Aſſiſtance of three other Juſtices; in this Court are tried not only Criminal Cauſes, or, as we ſtile them, Offences againſt the Crown, bnt Civil alſo, which relate to Matter of private Property. The Chief Juſtice of the Common Pleas, and three other Juſtices, hear and determine all Civil Cauſes in that Court, at the Bar of which, none are allowed to plead under the Degree of a Serjeant at Law: The Judges of the Court of Exchequer have the Title of Barons, and he who preſides, that of Lord Chief Baron; in this Court are regulated all Affairs in relation to the public Revenue, and it is beſides, both a Common Law Court, and a Court of Equity. In the former, the Pleadings are the ſame as in the other Common Law Courts, and in the latter, they reſemble the Proceedings of the Court of Chancery. Appeals from all theſe Courts in general, as well as from the Courts of Law and Equity in *Scotland* and *Ireland*, are in the laſt Reſort determined in the Houſe of Peers. As for the Diſtribution of Juſtice in the Country, it is uſually committed to the ſame Judges, by the Title of Juſtices of Aſſize. There are two upon each of the Circuits, one for Criminal, the other for Civil Cauſes, and except in the moſt diſtant of the *Northern* Counties, the Aſſizes are held twice a Year, which Seaſons are commonly diſtinguiſhed by the Names of *Lent* and *Summer* Aſſizes. But the County Palatine of *Cheſter*, and the Principality of *Wales*, have particular Judges, who act diſtinctly by the King's Commiſſions; and thus every Part of the Kingdom is open to, and receives the equal Benefit of the Laws.

As to the other Acts of Government, which extend through all the different Parts of the Nation, they are either of a Political or Judicial Nature. In reference to the former, there is in every County a Lord Lieutenant, to whom the King's Pleaſure is made known, and by whom it is communicated to his Deputy Lieutenants, and where any Military Force is neceſſary, to the Officers of the Militia. There is alſo in every County a Keeper of the Archives, better known by his *Latin* Name of *Cuſtos Rotulorum*, and he recommends ſuch Gentlemen as are proper to be in the Commiſſion of the Peace, and they are conſtituted Juſtices, or, as they were anciently called, Conſervators of the Peace, which is a very clear Deſcription of their Office; for they have Power by

the Laws to correct ſmall Offenders, and to commit and confine great ones; but as there are a few only of theſe, in Compariſon of the Number of People, there are ſubordinate Officers in every Pariſh, ſuch as Headboroughs and Conſtables, who have a miniſterial Power of executing the Juſtices Warrants, and of interfering by their own Authority upon any open Breach of the Peace. In reſpect to Bloodſhed of all kinds, there is in every County, and by particular Privilege in leſſer Diſtricts, an Officer called a Coroner, who is inveſted with the Power of enquiring, and iſſuing ſuch Warrants as are neceſſary to that Enquiry, and of committing, that they may be brought to Juſtice, ſuch Delinquents as are thereby diſcovered. In reſpect to judicial Acts, the proper Officer in every County is the High Sheriff, to whom all Writs from the King's Courts are directed, and who commands the Execution of them by Warrants under his Hand and Seal to his Officers. Thus in a very narrow Compaſs, the Reader ſees, that the full Execution of the Laws is provided for, as well as the Means of procuring its Sentences and Decrees, are open in all Places, and to all Perſons, agreeable to the moſt extenſive Notions of natural Juſtice and common Right.

To enter into the Method in which Taxes are levied, or the Fleets and Armies of the Kingdom directed, is altogether beſide my Purpoſe, which is only to exhibit a general View of our Government, and ſo give a Proſpect of its Structure, without entering into a minute Deſcription of its Parts; I ſhall therefore conclude with obſerving, that as our numerous Manufactures, and extenſive Trade, afford the greateſt Encouragements to Induſtry, and as the acquiring a Property opens a free Paſſage to the higheſt Truſts and Honours that a free People can beſtow, ſo there is no Native of this Country can be poſſibly excluded from them, who has Merit enough to deſerve them; which is that peculiar Privilege that I before mentioned as a ſingular Bleſſing, and a particular Advantage of our Conſtitution, and which is not enjoyed in the ſame Latitude under any Government, now exiſting in *Europe*, or, for any thing that appears, was ever enjoyed in equal Extent under any of the Governments, the Forms of which ſtand recorded in Hiſtory. This, as it muſt afford the higheſt Pleaſure, and the greateſt poſſible Satisfaction to every *Briton*, ſo it ought to fill his Mind with a moſt tender Affection for his Country, and warm his Heart with the moſt lively Zeal for its Conſtitution.

CHAP

CHAP. V.

A ſhort Account of the principal States of Europe, *in reſpect to the Form of their Government, their Force, and Intereſt; particularly the Empires of* Germany, Ruſſia *and* Turkey, *the Kingdoms of* Denmark, Sweden, Poland, *&c. the Republics of* Venice, Genoa, *the* Swiſs *Cantons, and the* Seven Provinces; *interſperſed with various political Remarks and Obſervations relative to the Balance of Power, and the proportionable Strength of its principal Monarchies and Republics.*

THE only thing that ſeems to be now wanting to ſatisfy the Reader's Expectation in reference to this Head of Laws and Government, is a brief and general Repreſentation of the moſt conſiderable Governments that ſubſiſt at this Day in *Europe*, which though we are obliged to deliver in a very narrow Compaſs, yet from their ſtanding ſo near each other, and affording thereby an Opportunity of comparing them together, will render them both more agreeable, and more uſeful to a young Reader, as it will enable him to ſee at once a kind of political Chart, that will be of continual Service in the Peruſal of the Hiſtory of our own Times, which it imports us to know moſt, and for the underſtanding of which, however, we are furniſhed with the feweſt Helps. It may likewiſe contribute to excite a Deſire of being farther and more particularly informed, at the ſame time that it points out the ſhorteſt and eaſieſt Method of conducting and compleating ſuch Enquiries.

To begin then with the Empires that ſubſiſt at preſent, which are in Number three, *viz. Germany*, *Ruſſia* and *Turkey*. The Head of the firſt of theſe is, properly ſpeaking, ſtiled Emperor of the *Romans*, to which Rank he was raiſed without any Acceſſion of Power, from being King of *Germany*. Theſe Emperors are commonly reckoned the Succeſſors of thoſe of *Rome*; but the true and genuine Notion of their Dignity, is to be taken from the Policy of the *Roman* Church. The Popes, when they aſſumed to themſelves the Stile and Title of Spiritual Heads of *Chriſtendom*, found it neceſſary for their own Security, that the *Chriſtian* World ſhould have alſo a Temporal Head, and this Honour they beſtowed on the then Kings, now Emperors of *Germany*, who for a long time pretended to a Rank above Kings, whom they treated with the Title of *Serenity* only, and if they had been content to found

found this Precedency on Cuſtom and Preſcription only, perhaps this had never been queſtioned, but claiming it as a Right, thoſe Monarchs who were ſuperior to them in Power, thought it below them to be eſteemed inferior in Dignity; and therefore long ago ſubverted this Claim of Right, tho' they are ſtill content to allow the Emperors the harmleſs Honour of Precedency. His Power in the Empire is very much confined, his Revenue very ſmall, and as to Dominions he has really none in that Quality. He is elected by nine great Princes, whoſe Anceſtors were Officers of the Houſhold to the Emperor, when his Power was much greater. They are from the Exerciſe of this Dignity ſtiled Electors, and of theſe there are three Eccleſiaſtical and ſix Temporal; the former of *Mentz*, *Cologne* and *Treves*; the latter the King of *Bohemia*, the Duke of *Saxony*, the Marquiſs of *Brandenburgh*, the Duke of *Bavaria*, the Count *Palatine*, and the Duke of *Brunſwick Lunenbourg*, Elector of *Hanover*. The *German* Empire, conſidered as a Republic, is repreſented in the *Diet* at *Ratiſbon*, in which the Emperor's Commiſſary preſides, and the Elector of *Mentz* directs. The preſent Emperor is *Francis* Grand Duke of *Tuſcany*, born *Dec.* 8, 1708, and raiſed to that Dignity *Sept.* 13, 1745.

The Sovereign of all the *Ruſſias* was, and is ſtiled in his own Language *Czar*, and if a Woman, *Czarina*, which Titles taken literally, ſignify no more than Lord or Prince, Lady or Princeſs, and have been very differently interpreted into the other Languages of *Europe*; for ſometimes theſe Princes have been ſtiled Grand Dukes, and at others Monarchs. The late Czar *Peter* I. juſtly ſtiled the Great, aſſumed the Title of Emperor of all the *Ruſſias*, which by Degrees has been almoſt generally admitted, and is not like to be hereafter diſputed. The great Prince before-mentioned, was the Father, Founder and Legiſlator of his Empire; he enlarged it on all Sides at the Expence of the *Swedes*, the *Tartars*, the *Turks*, the *Perſians*, and the *Chineſe*; he made it equally formidable in *Europe* and in *Aſia*; he made it a Maritime Power; in ſhort, he made his Subjects Men, and from being the Scorn and Contempt, rendered them terrible to the World in general. The Government is abſolute, but for the Sake of being eaſier adminiſtered, there is a great Show of Authority in the Senate, which is however intirely dependent on the Sovereign. This beyond Controverſy is the moſt extenſive Monarchy in *Europe*; the ſtanding Forces are between two and three hundred thouſand; the Revenue is not great, but capable

capable of being made ſo; the Religion eſtabliſhed is that of the *Greek* Church. The preſent Czarina is *Elizabeth Petrowna*, Daughter to *Peter* the Great, born *Dec.* 29, 1709, and raiſed by a ſudden Revolution *Dec.* 6, 1741, to the Imperial Dignity which ſhe now enjoys, and of which *Peter Federowitz*, Duke of *Holſtein Gottorp*, and Grand Prince of *Ruſſia*, born *Feb.* 21, 1728, is the declared Succeſſor.

We have placed the Empire of *Turkey* laſt, out of reſpect to Chriſtianity; the Sovereigns of the *Turks* are hereditary and abſolute Monarchs by their Conſtitutions, but the Abuſe of their Power frequently ſubjects them to popular Inſurrections, to one of which the late *Grand Signior* owed his Authority. The *Turkiſh* Dominions are very large, and the Countries they poſſeſs, as fruitful as any in the Univerſe. The Force of this Empire has been hitherto very great, but at preſent is on the Decline. The Revenues are large, and as all the Lands are held by military Tenures, ſo the ſettled Militia, or regular Troops, are no great Expence to the Government. The *Turks* themſelves are *Mahometans*, but the far greater Part of their Subjects are *Chriſtians* of different Denominations. The preſent Grand Signior *Muſtapha* ſucceeded his Uncle *Oct.* 27, 1757.

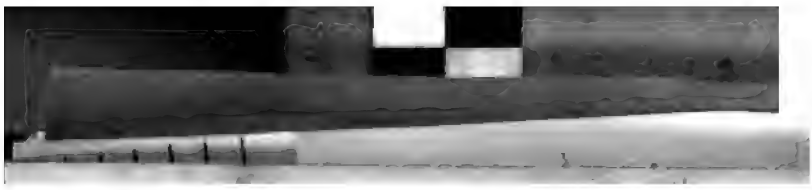
As it is neceſſary to obſerve ſome certain Order in ſpeaking of the reſt of the crowned Heads of *Europe*, we will begin with the Northern Crowns, and ſo paſs on to the middle and Southern Parts. The Crown of *Denmark*, with the Adjunction of that of *Norway*, may in this Light claim the firſt Place. It was anciently hereditary and abſolute, then it became elective and limited, but now by the voluntary Ceſſion of the People of their Rights, it is become both hereditary and abſolute again. The Kingdom of *Norway* is of a large Extent, that of *Denmark* but ſmall; the Country of *Holſtein*, and ſome other Lordſhips which the *Daniſh* Monarchs poſſeſs in *Germany*, are not very conſiderable; taken however all together, the King of *Denmark* may be juſtly conſidered as a powerful Prince. His Subjects are in Poſſeſſion of a very beneficial Trade, for they import little, and export much. His *Daniſh* Majeſty has always a good naval Force, a ſtanding Army of upwards of thirty thouſand Men, a competent Revenue, within the Bounds of which he lives; and for ſeveral Succeſſions, theſe Princes have been employed in the proper Buſineſs of Princes, they ſtudy how to make a ſmall Kingdom a great one. The People of *Denmark* are *Lutherans*. The preſent Monarch is *Frederick* V. born *March* 31, 1723, ſucceeded his Father in 1747.

The

The Kingdom of *Sweden* is very ancient, and has run thro' as many Changes and Alterations of Government, as perhaps any in the World. It has been formerly ſubject to *Denmark*, ſometimes an hereditary and almoſt abſolute Sovereignty, at others elective and limited; at preſent it is an hereditary Monarchy upon the Baſis of a limited Conſtitution, by which the King with the Advice of the Senate, is intruſted with the Adminiſtration, but the ſupreme Power ſeems to reſt in the Dyet. The *Swedes* are a very martial and a very thinking People, have a ſtrong Paſſion for Liberty, yet are naturally loyal to their Sovereigns; the internal Conſtitution of their Country is very well regulated, their Dominions have been much curtailed, and they are reſtleſs to recover them; they have a conſiderable Trade, a great naval Force, and a ſtanding Army of about ſixty thouſand Men. The *Swedes* are *Lutherans*, and their Church is governed by Archbiſhops and Biſhops. The preſent reigning King is *Adolphus Frederick* of *Holſtein Utin*, was born *May* 14, 1710, declared Hereditary Prince *July* 4, 1743, ſucceeded to the Crown *April* 6, 1751.

The Kingdom or Republic of *Poland*, in Point of Dominions is very conſiderable, whether we conſider the Extent or the Value of the Country. The Government has been always elective, but for a long Series of Time, the next Heirs were conſtantly elected. At preſent it is conſidered as an elective Monarchy, blended with an Ariſtocratical Republic, in which the Limits of Power are very uncertain between the King and the Nobility; but the common People are as near Slavery as it is poſſible to conceive them. The Force of *Poland* is naturally great, but Errors in Government have rendered it inconſiderable. The royal Revenue is very large, and very well paid; the prevailing Religion is that of the Church of *Rome*, but the *Greek* Church, the *Lutherans*, and indeed almoſt all Religions are tolerated in this Country. The preſent King is *Auguſtus* III. Elector of *Saxony*, born *Oct.* 7, 1696, elected King of *Poland Oct.* 4, 1733.

The Kingdoms of *Hungary* and *Bohemia*, formerly elective, but now hereditary in the Houſe of *Auſtria*, with the leſſer Principalities and other Territories, either dependent upon them, or belonging by other Rights to that auguſt Houſe, form one of the moſt conſiderable Sovereignties, as appears by the regular Forces in the Service of this Potentate, amounting to upwards of two hundred thouſand Men. The People in the *Auſtrian* Dominions are moſtly of the *Romiſh* Church; but in



in *Hungary*, thoſe of the *Greek* Church and the Proteſtants are the Majority. The Empreſs Queen and Grand Ducheſs of *Tuſcany*, *Maria Thereſa* of *Auſtria*, is Queen of *Hungary* and *Bohemia*, and was born *May* 13, 1717, and became the ſole Heireſs of the Houſe of *Auſtria*, by the Death of her Father the late Emperor *Charles* VI. *Oct.* 9, 1740, and married the preſent Emperor *Feb.* 12, 1736.

We muſt next take notice of the new but potent Monarchy of *Pruſſia*, erected almoſt in our own Times, and yet for many Years very little conſidered after it was erected. One may ſafely ſay, that it is one of the moſt ſingular Kingdom that ever exiſted, ſince it is not very eaſy to learn where the Countries lie that belong in abſolute Sovereignty to this Monarch. But notwithſtanding this Inconveniency, another ſtill greater, the want of Connection between his Territories; and a third greater than this, the having hardly a Port of Capacity or Conſequence in his Dominions; yet the preſent King has undertaken to hold the Balance of the North, to give Direction to the Empire, and to be a Maritime Power. The two firſt he has in great meaſure accompliſhed, whether he will be able to bring about the laſt, and how, we muſt learn from Time, which alone is capable of revealing his Councils. This Monarch, who is the Wonder of this Age, and will be more ſo of the next, has many fine Countries, and the Expectancy of more; he has a large Revenue, and his conſtant ſtanding Force conſiſts of about one hundred thouſand Horſe, Foot, and Dragoons. His Subjects are *Lutherans*, and of the Reformed Religion; he likewiſe tolerates *Papiſts*, *Greeks*, and *Moravians*. His Name is *Frederick* III. born *January* 24, 1712, and came to the Crown by the Death of his Father, *June* 1, 1740.

We ſhall now paſs through *Germany* over the *Rhine*, which brings us into the great Kingdom of *France*, the original Conſtitution of which very much reſembled our own, their *Parliament* being properly our Court *de More*, and their *Aſſembly* of the *States* the ſame thing with our *Parliaments*. Their Kings had ſcarce ſo great Power as ours; and on the other hand, their Nobility down to the very laſt Century, were very near as formidable as our Barons. Cardinal *Richlieu* laid the Foundation of abſolute Authority in the Monarchy, upon which the Cardinals his Succeſſors have wrought aſſiduouſly ever ſince. By this means the two laſt *French* Kings have been as deſpotic as any of the Monarchs of the *Eaſt*, only they have been wiſe enough to ſave Appearances, that

that Tyranny might be tolerable. This Kingdom is one of the largeſt, as well as one of the fineſt in *Europe*; the Country fruitful, and producing all the Neceſſaries and Conveniencies of Life; notwithſtanding which, the Gentry are neceſſitous, and the common People miſerable. The King has a vaſt Revenue, and in time of Peace, his regular Troops are about one hundred and fifty thouſand Men, which in time of War he doubles, and ſometimes carries his Levies ſtill higher, being able to force the laſt Man into the Field, and the laſt Penny out of the Pockets of the People. His Subjects are of the Popiſh Religion, no other being ſo much as tolerated in his Dominions. The preſent King is *Lewis* XV. ſurnamed the *Well-Beloved*, born *Feb.* 15th, 1710, and ſucceeded his Great Grandfather *Lewis* XIV. in the Throne *September* 1, 1715.

Great Britain ought next to employ our Pen; but as we have treated amply of that in the two laſt Chapters, it is not neceſſary to ſay any thing more here, than that our preſent Moſt Gracious Sovereign GEORGE II. whom GOD preſerve! was born *October* 30th, 1683, and ſucceeded his Father *June* 11th, 1727.

The Kingdom of *Spain* was heretofore one of the greateſt and moſt powerful in *Europe*, but by a Succeſſion of weak Princes brought very low; and for fifty Years paſt, has been almoſt entirely governed either by *French* or *Italian* Councils. Its original Conſtitution, like the reſt of the *Gothic* Governments, was in a great meaſure free, till in a long Courſe of Time it has been either corrupted or ſubverted; ſo that the *Cortes* or *Parliament* of *Spain* is grown into Diſuſe, and the King is become in a great meaſure abſolute, though not to ſuch a degree as his Brother of *France*. All the World knows the Dominions of this Crown are very extenſive, and the Revenue no leſs conſiderable, but its Forces bear no Proportion to either; the Armies of *Spain* being moſtly Mercenaries, and ſeldom numerous, or well paid. Its Naval Power, which was formerly ſo great, is dwindled almoſt to nothing, and except in Pride and Haughtineſs, the modern *Spaniſh* Monarchs fall very far ſhort of their Predeceſſors. The Popiſh Religion and the Inquiſition reign here without Controul. The preſent King *Ferdinand* VI. was born *Sept.* 23d, 1713, and ſucceeded his Father *July* 9th, 1746.

Portugal is a Kingdom ſmall in Extent, but conſiderable by its Trade and Plantations. A great part of the Country is fruitful

fruitful and pleaſant, produces many valuable Commodities, and the People in general are much richer than their Neighbours the *Spaniards*. As to the Government, it is very moderate, and the Extent of the Regal Power ſcarce known, becauſe it is ſeldom or never exerted. The Force of *Portugal* is very conſiderable both by Land and Sea, ſo that it owes its Security to Alliances, and chiefly to its ſtrict Connection with *Great Britain*; yet conſidering the Size of his Dominions, the King of *Portugal* has as good a Revenue as any Prince in *Europe*. The Popiſh Religion and the Inquiſition are predominant here alſo, though there are a great Number of concealed *Jews*, as there are in *Spain*. The preſent King of *Portugal* is *Joſeph*, born *June* 6th, 1714, ſucceeded his Father in the Throne *July* 31ſt, 1750.

There are beſides theſe, two new-erected Kingdoms. The firſt in virtue of the Treaty of *Utrecht*, by which *Victor Amadeus*, late Duke of *Savoy*, became King of *Sicily*, but was afterwards forced to exchange it for *Sardinia*. This Prince cannot boaſt of large Dominions, but the Situation of them makes him very conſiderable. He holds the *Balance* of *Power* in *Italy*, and muſt hold it as long as that Balance ſubſiſts. His Duchy of *Savoy* is but poor, yet populous, and ſerves to recruit his Forces. His Kingdom of *Sardinia* is a fertile Country, and yet far enough from being rich; but the Flower of his Territories, is his Principality of *Piedmont*, which is well cultivated, well built, and well peopled. His ſtanding Troops conſiſt of about forty thouſand Men; and his Revenue enables him to keep a Court, if not the moſt ſplendid, the beſt regulated in *Europe*. It is but juſt to ſay of him, that he is a great Prince, and his Subjects happy. They are for the moſt part of the Popiſh Religion, excepting in the Vallies, where they are Proteſtants. The preſent King is *Charles Emanuel*, born *April* 27th, 1701, and became King by the Abdication of his Father *October* 3d, 1730.

The other new Kingdom is that of *Naples*, erected after the laſt War, by the Exchange of the Duchies of *Parma* and *Placentia* for the *Two Sicilies*. There cannot certainly be finer Countries than theſe, which are fruitful in the higheſt Degree, and have ſeveral fine Ports, yet they cannot boaſt either of extraordinary Riches or of extenſive Trade. The King, however, with the Aſſiſtance of a Penſion from *Spain*, maintains between twenty and thirty thouſand Men, and a very few Gallies. His Revenue is very moderate; and upon the whole, he is very little more than a Viceroy, notwithſtanding

ſtanding his founding Titles of *Charles* IX. of *Bourbon*, King of *Naples*, *Sicily*, and of *Jeruſalem*, Infant of *Spain*. He was born *Jan.* 20, 1716, and became King of the *Two Sicilies* in 1734. His Subjects are of the Popiſh Religion, and the Power of the Inquiſition is felt here in its full Extent.

In former Times, the *Power* of the *Popes* was ſo great, that they not only claimed, but enjoyed a very large Share of Authority, even in Temporals, over all the Princes of *Chriſtendom*; but tho' they ſtill keep up their Claim, that Power is not only in a great meaſure curtailed, but the very Title to it treated with Contempt, even by Princes of their own Communion. The modern Popes are therefore grown wiſer than to think of uſing their ſpiritual Arms, and have therefore had recourſe to what ſerves their Purpoſes much better, political Intrigues and a conſtant Succeſſion of Negociations carried on amongſt the foreign Miniſters at *Rome*, where moſt of the great Projects that have been brought upon the Carpet of late Years, have either taken Birth, or been adjuſted and brought into Order. The Mediation of the Pope alſo is frequently made uſe of to terminate the Wars, and to accommodate the Differences that happen between Princes of the *Romiſh* Religion. Beſides all this, his Holineſs enjoys a very conſiderable Principality in *Italy*; which, however, does no great Honour to that Policy for which the Court of *Rome* is renowned; ſince tho' in other Hands the Countries he poſſeſſes were as fair, as fruitful, and as flouriſhing as any in this Part of the World, yet for ſome Ages paſt, they have been in a miſerable Condition, the Air being very unwholſome, from the ſtanding Water and Bogs, owing to the Neglect of Cultivation, and the Want of People; for ſo far is his Yoke from being eaſy, or his Burthen light, that it is univerſally agreed, no People in *Europe* are more harſhly treated than the Inhabitants of the Eccleſiaſtical State. The Forces of the Pope are ſo ſmall and weak, that they ſerve only to oppreſs his own Subjects, and would ſcarce defend him from the weakeſt of his Neighbours; his Revenue however is very conſiderable, the Treaſure at *Loretto* immenſe, and, there is believed to be a very large Sum of ready Money in the Caſtle of *St. Angelo*. It is almoſt unneceſſary to ſay of what Religion the People in this Country are; but it may not be amiſs to obſerve, that the *Jews* are openly tolerated, and other Religions little moleſted, at the ſame time that the Inquiſition of *Rome* is the moſt moderate of any. The preſent Pope is *Benedict* XIV. born *March* 31ſt, 1675, raiſed to the Pontifical Dignity *Aug.* 17th, 1740.

The

The eldeſt Republic in *Europe* is that of *Venice*, of the Erection of which the Reader has already had a competent Account in the Treatiſe upon Trade and Commerce. The ſupreme Power of the Republic, as well as the Adminiſtration, is inveſted in the Senate; and as this State is a pure *Ariſtocracy*, ſo there is a political Inquiſition as well as an eccleſiaſtical one. The former is ſtiled the Council of Ten, and is much more ſevere than the latter; for Strangers may be of what Religion they pleaſe at *Venice*, provided they behave with Reſpect and Caution towards the Government. The Force of this State is very conſiderable, as they have always thirty or forty thouſand regular Troops in their Pay; but their naval Strength, which in paſt Times was very formidable, is at preſent but inconſiderable. The eſtabliſhed Religion is that of the Church of *Rome*, but the *Greeks* and *Armenians* are alſo tolerated.

The Republic of *Genoa* comes next under our Conſideration, and without doubt, the Narrowneſs of her Territories conſidered, never was any Place ſo ſubject as this to Revolutions. She has been often free, ſometimes in Subjection, but almoſt always in Dependence. Her Territories are two narrow Stripes of Sea-Coaſt, lying Eaſt and Weſt from the Capital, and ſtiled from thence the Eaſtern and Weſtern *Riviera's*, which in *Engliſh* ſignifies Strands. The Doge is not for Life as at *Venice*, but is elected every two Years; the Adminiſtration is in him, with the little and great Council. The Iſland, or as they affect to call it, the Kingdom of *Corſica*, belongs to this Republic, and from hence they claim the ſame Honours that are paid to crown'd Heads; but have never yet been able to obtain them. Their Force is but ſmall, and their Revenue neither great nor certain, which is the chief Reaſon of their depending upon the Houſe of *Bourbon*. Their Subjects are of the *Romiſh* Religion.

The *Swiſs Cantons* are, properly ſpeaking, a Confederacy of Republics, that ſet themſelves free in the Beginning of the fourteenth Century. They are in Number thirteen, each living under its own particular Government, and theſe Governments are as different as can be imagined; ſome are *Ariſtocracies*, ſome *Democracies*, but moſt of them mixed. The *Cantons* of *Zurich*, *Bern*, *Baſil*, and *Schaffhauſen* are Proteſtants; thoſe of *Lucern*, *Fribourgh*, *Soleure*, *Zug*, *Uzi*, *Underwald*, and *Switz*, are Papiſts; the *Cantons* of *Glaris* and *Appenſel*, are partly Papiſts, partly *Calviniſts*. The general Diet is held at *Baden* The Leagues of the *Griſons* are alſo joined with the *Swiſs*, as are alſo ſome other little States, particularly the Principality of *Neufchatel*, and the free City of *Geneva*. The Country is not very large, and moſt part of it moun-

tainous; but there are ſome Places that are very pleaſant. The People in general are rich, or, which I take to be the ſame thing, have competent Fortunes, and are content. The Force of the *Swiſs Cantons*, the *Griſons*, and their Allies, is prodigiouſly great, ſo that they can bring into the Field two hundred thouſand Men.

The Republic of the *United Provinces* is the laſt in point of Erection, but the moſt conſiderable in *Europe*. It conſiſts alſo of a Confederacy, for each Province is a ſeparate Republic: They are uſually placed in the following Order, *viz. Holland*, *Zealand*, *Utrecht*, *Zutphen* and *Guelders*, *Overyſſel*, *Frieſland*, and *Groningen*. The Government has been generally eſteemed, but falſly, to be a *Democracy*; of late Years it has been thought a kind of *Oligarchy*. At preſent it is properly regulated, his Serene Highneſs the Prince of *Orange* is hereditary Stadtholder of the Union, and in Conjunction with the *States General*, hath the Adminiſtration of the Government; in other reſpects the ſeveral Provinces remain independent. The Dominions of the Republic are not large, but the beſt Part of them is excellently cultivated, and the Province of *Holland* is, for its Extent, the moſt populous of any in *Europe*. The Trade of *Holland* is prodigiouſly great, and its Subjects immenſely rich in time of Peace; they have a regular Force of about fifty thouſand Men, and are able to double, and even to treble it in time of War. The Religion eſtabliſhed is *Calviniſm*, but all other Religions are tolerated. The *States-General*, as well as the Republic of *Venice*, enjoy the Honours of crowned Heads.

There are beſides thoſe before-mentioned, ſeveral leſſer Principalities and States in *Europe*, which it will be ſufficient to name. The Duchy of *Courland* depends upon the Kingdom of *Poland*. The Principality of *Tranſilvania* is united to the Kingdom of *Hungary*. The Waywodeſhips of *Moldavia* and *Walachia* depend upon the Grand Signior, as does alſo the little Republic of *Raguſa*. In *Italy* there are, the Grand Dukedom of *Tuſcany*, the Dukedom of *Modena*, the Dukedom of *Maſſa Carrara*, and the Principality of *Monaco*; to which we may add the ſmall free States of *Lucca* and St. *Marino*. The following Table is calculated to ſhew the Proportion between the Powers of *Europe*, *Great Britain* being conſidered as the Standard, and conſequently ſhews the Proportions of theſe Countries to each other.

The great Powers of *Europe*.

Ruſſia	10	13	*Portugal*	0	36
Germany	3	53	*Spaniſh Netherlands*	0	18
Sweden	3	63	*United Provinces*	0	11
Poland	3	39	*Switzerland*	0	17
France	1	7	*Denmark*	1	49
Spain	1	81	*Italy*	1	19
Turkey	3	18			

PART

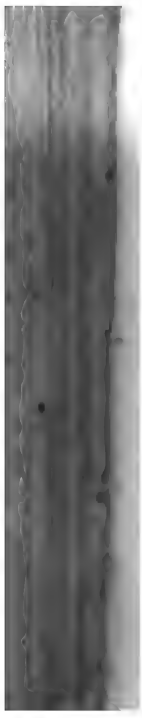
PART XII.

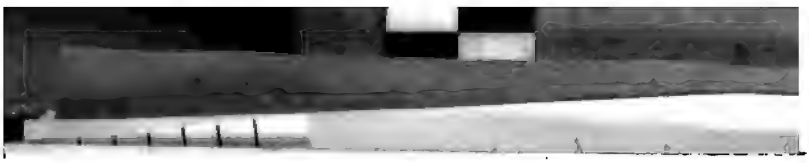
ON

HUMAN LIFE

AND

MANNERS.





ON

HUMAN LIFE

AND

MANNERS.

THUS, my dear Pupil, I have endeavoured to conduct you into the firſt Entrance, as it were, of the Temple of Science; and now, whether you will make any farther Progreſs into the ſacred Receſſes of this glorious Structure, depends entirely upon yourſelf. Here at leaſt *my* Labours muſt leave you; and having ſowed in your Mind every uſeful Seed, it is your Part to cultivate and improve them into the Fruits of Knowledge and Virtue: And if you have any Deſire to be eſteemed in the World by the Wiſe and the Good, if you have any Regard to your own future Happineſs or Reputation, let me intreat you to exert your warmeſt Endeavours for that Purpoſe.

But before I diſmiſs you wholly from my Care, and reſign you to the Commerce of Mankind, in which you are to make uſe of the Inſtructions which I have given you, I think it neceſſary to inform you, that without other Preparatives than I have been able to afford you, the World will be full of Dangers, and you will be ill qualified to encounter Temptations, to toil through Hardſhips, and emerge from Calamities. By thoſe who have looked moſt attentively upon the Scenes of Life, it has been remarked, that Scholaſtic Knowledge is not of any great uſe in Complications of Difficulty, or under Preſſures of Diſtreſs; that it yields no firm Protection from the Strokes of Misfortune, nor any certain Preſervative againſt the Contagion of Vice. It often appears, that Men of Learning are the Tools of Policy, the Slaves of Power, and the Pimps of Wickedneſs; that they are corrupt, and promote Corruption; that they are Cowards and diffuſe Cowardice; and that they comply with every Demand, becauſe they tremble at every Danger. You will wonder, that having laid out my own

Life in gaining and communicating Knowledge, I ſhould at laſt make this Declaration; and that after having ſo urgently preſſed you to the Sciences, I ſhould now give you this Character of thoſe who profeſs them. But tho' theſe Faults are incident to Men of Learning, their Learning is not to be condemned; they miſcarried only becauſe they were too ſoon ſatisfied with their Acquiſitions; and fell into Folly or into Crimes, not becauſe they had gained Learning, but becauſe they wanted Wiſdom; becauſe they had never applied their Principles to their own Conduct, and had endeavoured to know any thing rather than themſelves. They ſpeculated ſo much, that they forgot to practiſe; they obſerved others, but neglected themſelves, and ſent out ſo many Scouts for Intelligence, that there was no Force left to guard the Citadel; and Fear or Avarice took Poſſeſſion of their Hearts, while their Reaſon was engroſſed by Enquiries of remote Effect or needleſs Curioſity. Let it therefore be always remembered by you in planning the Fabric of Happineſs, that its Foundation muſt be laid by Wiſdom; and on any other Ground you will erect only a ſlight and tottering Structure, which will be ſapped by the Mines of Vice, or overthrown by the Batteries of Affliction. Pauſe therefore for a time at the Portal of Life, and forbear to ſtep forward, however the Proſpect may allure you, till you have added to your other Acquirements that Wiſdom, of which the Beginning is the Fear of God, and the Purpoſe and Effect eternal Felicity. You will then enter upon Life with the Courage and Dignity of a Being formed for endleſs Duration; you will walk forward with your Eye fixed upon one Point; and if Riches and Honours fall in your Way, you will uſe them with Eaſe and Superiority, as Means ſubſervient to a greater Purpoſe. This Wiſdom is not in the Power of one Man to confer upon another, becauſe it is not like Learning, the mere Perception of Truth, which may by a proper Arrangement of Propoſitions and a juſt Application of Words, be forced upon the Mind; but the Entertainment and Recollection of certain Truths, till they become familiar and predominant, ſo as to mix with every Meditation, preſide in every Deciſion, and regulate our Conduct almoſt without any obſervable Intervention of our Reaſon: it is the Superaddition of a moral Senſe, a voluntary Improvement of our Perceptions of Good and Evil, till we find their Difference inſtantaneouſly, almoſt in the ſame manner as we are affected by our other Senſes, except that our other Motions are impreſſed by Nature, and theſe ariſe from ourſelves.

Such a Senſation muſt be the Effect of Ideas, admitted with Pleaſure and revolved by Choice; it is the Reſult ſimply of each Man's own Endeavours, and the nobleſt Exertion of

Free

Free Will acting under the Direction of Reaſon. But in this, as in ever other complicated Deſign, there are ſome Precepts to be given, which, ſuppoſing the End already choſen, may facilitate its Attainment; and therefore adviſe you to divide the Study of yourſelf into the three diſtinct Subdiviſions of *Habits*, *Sentiments*, and *Paſſions*.

By HABIT is meant ſuch a Cuſtom of doing any particular Action, as to fall into it involuntarily and without thinking, or to repeat it ſo frequently as to render it almoſt a part of our Nature, not to be ſubdued without the greateſt Difficulty. Of the *firſt* ſort is the impious and fooliſh Habit of *Swearing*; and of the *ſecond* is that of *Drinking*. What can be the Motive to Swearing, it is not eaſy to ſay, or why any Man ſhould depart from Reaſon as well as Virtue ſo far, as to mention with hourly Irreverence the ſacred and aweful Name of the Lord of Being, and ſubject himſelf to the Danger of habitual Perjury, of which tho' Part of the Guilt may be extenuated, as nobody is deceived, yet the other Part which ariſes from the Inſult to the Author of Truth, no virtuous Being can conceive without Horror. The Original of this hateful Practice was perhaps only the Deſire of appearing manly, and ſhewing that the Fear of Reproof is at an End; and at laſt the Claim to Manhood is proſecuted, till the Practice is no longer the Conſequence of Thought, and the Swearer is ſhunned as a Demon by the Pious, and as a Brute by the Polite.

The Motive to Drunkenneſs is eaſily diſcovered; the Pleaſures of Mirth, the Solicitations of Company, and the Calls of Appetite concur to promote it. But, my Pupil, learn early to deſpiſe that Mirth of which the End is Sorrow, to refuſe that Company which calls you to Deſtruction, and to deny thoſe Appetites, which are never to be ſatisfied, and which will demand more as they are more indulged. At leaſt, before you ſuffer this Habit to prevail, take a deliberate View of the Conſequences which muſt enſue it. An Unfitneſs and Inattention to Buſineſs, a Depravity of Taſte and Manners, a Loſs of Appetite, a Decay of Health, and perhaps a ſuddenly and untimely Period of your Days; or a Condemnation to the ſad Remainder of them in Pain and Miſery, with a broken Conſtitution, a ruined Fortune, and a loſt Reputation. A Courſe of Pain and Want unalleviated by Conſciouſneſs of Innocence, or Hope of Recompence.

I might go on to ſhew you in ſeveral other Inſtances, the fatal Conſequences of indulging bad Habits; but I will only mention that of *Idleneſs* and *Sauntering*. *Indolence*, ſays an Eaſtern Writer, is the Daughter of *Folly*, the Siſter of *Vice*, and the

Mother of *Misfortune*. Whoever ſuffers himſelf to fall into this pernicious Habit, cannot hope to make much Progreſs in Learning or Knowledge of any Kind; and conſequently muſt give up the glorious Aim of rendering himſelf uſeful and conſpicuous in any Capacity or Station of Life. WISDOM is not to be won without great Aſſiduity and conſtant Application; She muſt be ſought for early, and attended late. But he who conſumes his Hours in idle Sauntering, or buries them in Morning Slumbers, ſhall never ſee the Light of Fame, any more than that of the Sun, riſing upon him.

Let me then intreat you, my dear Pupil, to take particular Care how you contract *bad Habits* of any kind; like the envenom'd Shirt of *Hercules*, in ſpite of all your Endeavours to ſhake them off, they will hang upon you to your Deſtruction. But I will illuſtrate this Subject, and cloſe my Advice to you on this Head, with a beautiful and inſtructive Fable, communicated to me by a Friend for this Purpoſe.

The Viſion of THEODORE, *the Hermit of* Teneriffe, *found in his Cell.*

SON of Perſeverance, whoever thou art, whoſe Curioſity has led thee hither, read and be wiſe. He that now calls upon thee is *Theodore* the Hermit of *Teneriffe*, who in the fifty-ſeventh Year of his Retreat left this Inſtruction to Mankind, leſt his ſolitary Hours ſhould be ſpent in vain.

I was once what thou art now, a Groveller on the Earth, and a Gazer at the Sky; I traffick'd and heaped Wealth together, I loved and was favoured, I wore the Robe of Honour, and heard the Muſic of Adulation; I was ambitious, and roſe to Greatneſs; I was unhappy, and retired. I ſought for ſome time what I at length found here, a Place where all real Wants might be eaſily ſupplied, and where I might not be under the Neceſſity of purchaſing the Aſſiſtance of Men by the Toleration of their Follies. Here I ſaw Fruits and Herbs and Water, and here determined to wait the Hand of Death, which I hope, when at laſt it comes, will fall lightly upon me.

Forty-eight Years had I now paſſed in Forgetfulneſs in all mortal Cares, and without any Inclination to wander farther than the Neceſſity of procuring Suſtenance required; but as I ſtood one Day beholding the Rock that overhangs my Cell, I found in myſelf a Deſire to climb it; and when I was on its Top, was in the

ſame

ſame manner determined to ſcale the next, till by Degrees I conceived a Wiſh to view the Summit of the Mountain, at the Foot of which I had ſo long reſided. This Motion of my Thoughts I endeavoured to ſuppreſs, not becauſe it appeared criminal, but becauſe it was new; and all Change not evidently for the better, alarms a Mind taught by Experience to diſtruſt itſelf. I was often afraid that my Heart was deceiving me, that my Impatience of Confinement roſe from ſome earthly Paſſion, and that my Ardour to ſurvey the Works of Nature, was only a hidden Longing to mingle once again in the Scenes of Life. I therefore endeavoured to ſettle my Thoughts into their former State, but found their Diſtraction every Day greater. I was always reproaching myſelf with the Want of Happineſs within my Reach; and at laſt began to queſtion whether it was not Lazineſs rather than Caution, that reſtrained me from climbing to the Summit of *Teneriffe*.

I roſe therefore before the Day, and began my Journey up the Steep of the Mountain; but I had not advanced far, old as I was and burthened with Proviſions, when the Day began to ſhine upon me; the Declivities grew more precipitous, and the Sand ſlided from beneath my Feet; at laſt, fainting with Labour, I arrived at a ſmall Plain, almoſt incloſed by Rocks and open only to the Eaſt. I ſat down to reſt awhile, in full Perſuaſion that when I had recovered my Strength, I ſhould proceed on my Deſign; but when once I had taſted Eaſe, I found many Reaſons againſt diſturbing it. The Branches ſpread a Shade over my Head, and the Gales of Spring wafted Odours to my Boſom.

As I ſat thus forming alternately Excuſes for Delay, and Reſolutions to go forward, an irreſiſtible Heavineſs ſuddenly ſurprized me; I laid my Head upon the Bank and reſigned myſelf to Sleep: when methought I heard the Sound as of the Flight of Eagles, and a Being of more than human Dignity ſtood before me. While I was deliberating how to addreſs him, he took me by the Hand with an Air of Kindneſs, and aſked me ſolemnly, but without Severity, '*Theodore*, whither 'art thou going?' I am climbing, anſwered I, to the Top of the Mountain, to enjoy a more extenſive Proſpect of the Works of Nature. 'Attend firſt (ſaid he) to the Proſpect 'which this Place affords, and what thou doſt not underſtand 'I will explain. I am one of the benevolent Beings who watch 'over the Children of the Duſt, to preſerve them from thoſe 'Evils which will not ultimately terminate in Good, and 'which they do not, by their own Faults, bring upon themſelves.

'Look

'Look round therefore without Fear: obſerve, contemplate, 'and be inſtructed.'

Encouraged by this Aſſurance, I looked and beheld a Mountain higher than *Teneriffe*, to the Summit of which the Human Eye could never reach; when I had tired myſelf with gazing upon its Height, I turned my Eyes towards its Foot, which I could eaſily diſcover, but was amazed to find it without Foundation, and placed inconceivably in Emptineſs and Darkneſs. Thus I ſtood terrified and confuſed; above were Tracts inſcrutable, and below was total Vacuity. But my Protector, with a Voice of Admonition, cried out, *Theodore*, be not affrighted, but raiſe thy Eyes again; the *Mountain* of *Exiſtence* is before thee, ſurvey it and be wiſe.

I then looked with more deliberate Attention, and obſerved the Bottom of the Mountain to be of gentle Riſe, and overſpread with Flowers; the Middle to be more ſteep, embarraſſed with Crags, and interrupted by Precipices, over which hung Branches loaded with Fruits, and among which were ſcattered Palaces and Bowers. The Tracts which my Eye could reach neareſt the Top were generally barren; but there were among the Clefts of the Rocks, a few hardy Evergreens, which though they did not give much Pleaſure to the Sight or Smell, yet ſeemed to chear the Labour and facilitate the Steps of thoſe who were clambering among them.

Then beginning to examine more minutely the different Parts, I obſerved, at a great Diſtance, a multitude of both Sexes iſſuing into View from the Bottom of the Mountain. Their firſt Actions I could not accurately diſcern; but as they every Moment approached nearer, I found that they amuſed themſelves with gathering Flowers under the Superintendance of a modeſt Virgin in a white Robe, who ſeemed not over-ſolicitious to confine them to any ſettled Pace, or certain Track; for ſhe knew that the whole Ground was ſmooth and ſolid, and that they could not eaſily be hurt or bewildered. When, as it often happened, they plucked a Thiſtle for a Flower, *Innocence*, ſo was ſhe called, would ſmile at the Miſtake. Happy, ſaid I, are they who are under ſo gentle a Government, and yet are ſafe. But I had no Opportunity to dwell long on the Conſideration of their Felicity; for I found that *Innocence* continued her Attendance but a little Way, and ſeemed to conſider only the flowery Bottom of the Mountain as her proper Province. Thoſe whom ſhe abandoned ſcarcely knew that they were left, before they perceived themſelves in the Hands of *Education*, a Nymph more ſevere in her Aſpect and imperious in her

her Commands, who confined them to certain Paths, in their Opinion, too narrow and too rough. Theſe they were continually ſolicited to leave by *Appetite*, whom *Education* could never fright away, though ſhe ſometimes awed her to ſuch Timidity, that the Effects of her Preſence were ſcarcely perceptible. Some went back to the firſt Part of the Mountain, and ſeemed deſirous of continuing buſied in plucking Flowers, but were no longer guarded by *Innocence*; and ſuch as *Education* could not force back, proceeded up the Mountain by ſome miry Road, in which they were ſeldom ſeen, and ſcarcely ever regarded.

As *Education* led her Troop up the Mountain, nothing was more obſervable than that ſhe was frequently giving them Cautions to beware of *Habits*; and was calling out to one or another at every Step, that a *Habit* was enſnaring them; that they would be under the Dominion of *Habit* before they perceived their Danger; and that thoſe whom a *Habit* ſhould once ſubdue, had little hope of regaining their Liberty.

Of this Caution, ſo frequently repeated, I was very ſolicitous to know the Reaſon, when my Protector directed my Regard to a Troop of Pygmies, which appeared to walk ſilently before thoſe that were climbing the Mountain, and each to ſmooth the Way before her Follower. I found that I had miſſed the Notice of them before, both becauſe they were ſo minute as not eaſily to be diſcerned, and becauſe they grew every Moment nearer in their Colour to the Objects with which they were ſurrounded. As the Followers of *Education* did not appear to be ſenſible of the Preſence of theſe dangerous Aſſociates, or, ridiculing their diminutive Size, did not think it poſſible that human Beings ſhould ever be brought into Subjection by ſuch feeble Enemies, they generally heard her Precepts of Vigilance with Wonder; and, when they thought her Eye withdrawn, treated them with Contempt. Nor could I myſelf think her Cautions ſo neceſſary as her frequent Inculcation ſeemed to ſuppoſe, till I obſerved that each of theſe petty Beings held ſecretly a Chain in her Hand, with which ſhe prepared to bind thoſe whom ſhe found within her Power. Yet theſe *Habits* under the Eye of *Education* went quietly forward, and ſeemed very little to increaſe in Bulk or Strength; for though they were always willing to join with *Appetite*, yet when *Education* kept them apart from her, they would very punctually obey Command, and make the narrow Roads in which they were confined eaſier and ſmoother.

It was obſervable, that their Stature was never at a ſtand, but continually growing or decreaſing, yet not always in the ſame

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Proportions; nor could I forbear to expreſs my Admiration, when I ſaw in how much leſs time they generally gained than loſt Bulk. Though they grew ſlowly in the Road of *Education*, it might however be perceived that they grew; but if they once deviated at the Call of *Appetite*, their Stature ſoon became gigantic, and their Strength was ſuch, that *Education* pointed out to her Tribe many that were led in Chains by them, whom ſhe could never more reſcue from their Slavery. She pointed them out, but with little Effect; for all her Pupils appeared confident of their own Superiority to the ſtrongeſt *Habit*, and ſome ſeemed in ſecret to regret that they were hindered from following the Triumph of *Appetite*.

It was the peculiar Artifice of *Habit* not to ſuffer her Power to be felt at firſt. Thoſe whom ſhe led, ſhe had the Addreſs of appearing only to attend, but was continually doubling her Chains upon her Companions, which were ſo ſlender in themſelves and ſo ſilently faſtened, that while the Attention was engaged by other Objects, they were not eaſily perceived. Each Link grew tighter as it had been longer worn, and when by continual Additions they became ſo heavy as to be felt, they were very frequently too ſtrong to be broken.

When *Education* had proceeded in this manner to the Part of the Mountain where the Declivity began to grow craggy, ſhe reſigned her Charge to two Powers of ſuperior Aſpect. The meaner of them appeared capable of preſiding in Senates or governing Nations, and yet watched the Steps of the other with the moſt anxious Attention, and was viſibly confounded and perplexed if ever ſhe ſuffered her Regard to be drawn away. The other ſeemed to approve her Submiſſion as pleaſing, but with ſuch a Condeſcenſion as plainly ſhewed that ſhe claimed it as due; and indeed ſo great was her Dignity and Sweetneſs, that he who would not reverence, muſt not behold her.

"*Theodore*," ſaid my Protector, "be fearleſs, and be wiſe; ap-"proach theſe Powers, whoſe Dominion extends to all the re-"maining Part of the *Mountain* of *Exiſtence*." I trembled, and ventured to addreſs the inferior Nymph, whoſe Eyes, though piercing and aweful, I was not able to ſuſtain. "Bright "Power, ſaid I, by whatever Name it is lawful to addreſs thee, "tell me, thou who preſideſt here, on what Condition thy "Protection will be granted." "It will be granted! ſaid ſhe; "only to Obedience. I am *Reaſon*, of all ſubordinate Beings "the nobleſt and the greateſt; who, if thou wilt receive my "Laws, will reward thee like the reſt of my Votaries, by "conducting thee to *Religion*." Charmed by her Voice and Aſpect, I profeſſed my Readineſs to follow her. She then pre-

ſented

ſented me to her *Miſtreſs*, who looked upon me with Tenderneſs. I bowed before her, and ſhe ſmiled.

When *Education* delivered up thoſe for whoſe Happineſs ſhe had been ſo long ſolicitous, ſhe ſeemed to expect that they ſhould expreſs ſome Gratitude for her Care, or ſome Regret at the Loſs of that Protection which ſhe had hitherto afforded them. But it was eaſy to diſcover, by the Alacrity which broke out at her Departure, that her Preſence had been long diſpleaſing, and that ſhe had been teaching thoſe who felt in themſelves no want of Inſtruction. They all agreed in rejoicing that they would no longer be ſubject to her Caprices, or diſturbed by her Documents, but ſhould be now under the Direction only of *Reaſon*, to whom they made no doubt of being able to recommend themſelves by a ſteady Adherence to all her Precepts. *Reaſon* counſelled them at their firſt Entrance upon her Province, to inliſt themſelves among the Votaries of *Religion*; and informed them, that if they truſted to her alone, they would find the ſame Fate with her other Admirers, whom ſhe had not been able to ſecure againſt *Appetites* and *Paſſions*, and who having been ſeized by *Habits* in the Regions of *Deſire*, had been dragged away to the Caverns of *Deſpair*. Her Admonition was vain, the greater Number declared againſt any other Direction, and doubted not but by her Superintendency they ſhould climb with Safety up the *Mountain* of *Exiſtence*. "My Power, ſaid *Reaſon*, is to adviſe, not to "compel; I have already told you the Danger of your "Choice. The Path ſeems now plain and even, but there "are Aſperities and Pitfals, over which *Religion* only can "conduct you. Look upwards, and you perceive a Miſt be"fore you ſettled upon the higheſt viſible Part of the Moun"tain, a Miſt by which my Proſpect is terminated, and "which is pierced only by the Eyes of *Religion*. Beyond it "are the Temples of *Happineſs*, in which thoſe who climb "the Precipice by her Direction, after the Toil of their Pil"grimage repoſe for ever. I know not the Way, and there"fore can only conduct you to a better Guide. *Pride* has "ſometimes reproached me with the Narrowneſs of my View, "but when ſhe endeavoured to extend it, could only ſhew me, "below the Miſt, the Bowers of *Content*; even they vaniſhed "as I fixed my Eyes upon them; and thoſe whom ſhe per"ſuaded to travel towards them were inchanted by *Habits*, "and ingulfed by *Deſpair*, a cruel Tyrant, whoſe Caverns "are beyond the Darkneſs on the right Side and on the left, "from whoſe Priſons none can eſcape, and whom I cannot "teach you to avoid."

Such

Such was the Declaration of *Reaſon* to thoſe who demanded her Protection. Some that recollected the Dictates of *Education*, finding them now ſeconded by another Authority, ſubmitted with Reluctance to the ſtrict Decree, and engaged themſelves among the Followers of *Religion*, who were diſtinguiſhed by the Uniformity of their March, though many of them were Women, and by their continual Endeavours to move upwards, without appearing to regard the Proſpects which at every Step courted their Attention.

All thoſe who determined to follow either *Reaſon* or *Religion*, were continually importuned to forſake the Road, ſometimes by *Paſſions*, and ſometimes by *Appetites*, of whom both had reaſon to boaſt the Succeſs of their Artifices; for ſo many were drawn into By-paths, that any way was more populous than the right. The Attacks of the *Appetites* were more impetuous, thoſe of the *Paſſions* longer continued. The *Appetites* turned their Followers directly from the true Way, but the *Paſſions* marched at firſt in a Path nearly in the ſame Direction with that of *Reaſon* and *Religion*; but deviated by ſlow Degrees, till at laſt they entirely changed their Courſe. *Appetite* drew aſide the Dull, and *Paſſion* the Sprightly. Of the *Appetites*, *Luſt* was the ſtrongeſt; and of the *Paſſions*, *Vanity*. The moſt powerful Aſſault was to be feared, when a *Paſſion* and an *Appetite* joined their Enticements; and the Path of *Reaſon* was beſt followed, when a Paſſion called to one Side, and an Appetite to the other.

Theſe Seducers had the greateſt Succeſs upon the Followers of *Reaſon*, over whom they ſcarcely ever failed to prevail, except when they counteracted one another. They had not the ſame Triumphs over the Votaries of *Religion*; for tho' they were often led aſide for a time, *Religion* commonly recalled them by her Emiſſary *Conſcience*, before *Habit* had time to enchain them. But they that profeſſed to obey *Reaſon*, if once they forſook her, ſeldom returned; for ſhe had no Meſſenger to ſummon them but *Pride*, who generally betrayed her Confidence, and employed all her Skill to ſupport *Paſſion*; and if ever ſhe did her Duty, was found unable to prevail, if *Habit* had interpoſed.

I ſoon found that the great Danger to the Followers of *Religion* was only from *Habit*; every other Power was eaſily reſiſted, nor did they find any Difficulty when they inadvertently quitted her, to find her again by the Direction of *Conſcience*; unleſs they had given time to *Habit* to draw her Chain behind them, and bar up the Way by which they had wandered.

Of

Of ſome of thoſe the Condition was juſtly to be pitied, who turned at every Call of *Conſcience*, and tried, but without Effect, to burſt the Chains of *Habit:* ſaw Religion walking forward at a Diſtance, ſaw her with Reverence, and longed to join her; but were, whenever they approached her, with-held by *Habit*, and languiſhed in ſordid Bondage, which they could not eſcape, tho' they ſcorned and hated it.

It was evident that the *Habits* were ſo far from growing weaker by theſe repeated Conteſts, that if they were not totally overcome, every Struggle enlarged their Bulk and increaſed their Strength; and a *Habit* oppoſed and victorious was more than twice as ſtrong as before the Conteſt. The manner in which thoſe who were weary of their Tyranny endeavoured to eſcape from them, appeared by the Event to be generally wrong; they tried to looſe their Chains one by one, and to retreat by the ſame Degrees as they advanced; but before the Deliverance was completed, *Habit* always threw new Chains upon her Fugitive: nor did any eſcape her but thoſe who by an Effort ſudden and violent, burſt their Shackles at once, and left her at a Diſtance; and even of theſe many ruſhing too precipitately forward, and hindered by their Terrors from ſtopping where they were ſafe, were fatigued with their own Vehemence, and reſigned themſelves again to that Power from whom an Eſcape muſt be ſo dearly bought, and whoſe Tyranny was little felt, except when it was reſiſted.

Some however there always were, who, when they found *Habit* prevailing over them, called upon *Reaſon* or *Religion* for Aſſiſtance; each of them willingly came to the Succour of her Suppliant; but neither with the ſame Strength, nor the ſame Succeſs. *Habit*, inſolent with her Power, would often preſume to parley with *Reaſon*, and offer to looſe ſome of her Chains if the reſt might remain. To this *Reaſon*, who was never certain of Victory, frequently conſented, but always found her Conceſſion deſtructive, and ſaw the Captive led away by *Habit* to his former Slavery. *Religion* never ſubmitted to Treaty, but held out her Hand with Certainty of Conqueſt; and if the Captive to whom ſhe gave it did not quit his Hold, always led him away in Triumph, and placed him in the direct Path to the Temple of *Happineſs*, where *Reaſon* never failed to congratulate his Deliverance, and encourage his Adherence to that Power to whoſe timely Succour he was indebted for it.

When

When the Traveller was again placed in the Road of *Happineſs*, I ſaw *Habit* again gliding before him, but reduced to the Stature of a Dwarf, without Strength and without Activity; but when the *Paſſions* or *Appetites* which had before ſeduced him, made their Approach, *Habit* would on a ſudden ſtart into Size, and with unexpected Violence puſh him towards them. The Wretch thus impelled on one Side, and allured on the other, too frequently quitted the Road of *Happineſs*, to which, after his ſecond Deviation from it, he rarely returned. But if by a timely Call upon *Religion*, the Force of *Habit* was eluded, her Attacks grew fainter, and at laſt her Correſpondence with the Enemy was entirely deſtroyed. She then began to employ thoſe reſtleſs Faculties in compliance with the Power which ſhe could not overcome; and as ſhe grew again in Stature and in Strength, cleared away the Aſperities of the Road to *Happineſs*.

From this Road I could not eaſily withdraw my Attention, becauſe all who travelled it appeared chearful and ſatisfied; and the farther they proceeded, the greater appeared their Alacrity, and the ſtronger their Conviction of the Wiſdom of their Guide. Some who had never deviated but by ſhort Excurſions, had *Habit* in the Middle of their Paſſage, vigorouſly ſupporting them and driving off their *Appetites* and *Paſſions*, which attempted to interrupt their Progreſs. Others, who had entered this Road late, or had long forſaken it, were toiling on without her Help at leaſt, aud commonly againſt her Endeavours. But I obſerved, when they approached to the barren Top, that few were able to proceed without ſome Support from *Habit*, and that thoſe whoſe *Habits* were ſtrong advanced towards the Miſts with little Emotion, and entered them at laſt with Calmneſs and Confidence; after which they were ſeen only by the Eye of *Religion*, and though *Reaſon* looked after them with the moſt earneſt Curioſity, ſhe could only obtain a faint Glimpſe, when her Miſtreſs, to enlarge her Proſpect, raiſed her from the Ground. *Reaſon*, however, diſcerned that they were ſafe, but *Religion* ſaw that they were happy.

'Now, *Theodore*, ſaid my Protector, withdraw thy View 'from the Regions of Obſcurity, and ſee the Fate of thoſe who, 'when they were diſmiſſed by *Education*, would admit no 'Direction but that of *Reaſon*. Survey their Wanderings, 'and be wiſe.'

I looked then upon the Road of *Reaſon*, which was indeed, ſo far as it reached, the ſame with that of *Religion*, nor had *Reaſon* diſcovered it but by her Inſtruction. Yet when ſhe had

once

once been taught it, ſhe clearly ſaw that it was right; and *Pride* had ſometimes incited her to declare that ſhe diſcovered it herſelf, and perſuaded her to offer herſelf as a Guide to *Religion*, whom after many vain Experiments ſhe found it her higheſt Privilege to follow. *Reaſon* was however at laſt well inſtructed in part of the Way, and appeared to teach it with ſome Succeſs, when her Precepts were not miſrepreſented by *Paſſion*, or her Influence overborn by *Appetite*. But neither of theſe Enemies was ſhe able to reſiſt. When *Paſſion* ſeized upon her Votaries, ſhe ſeldom attempted Oppoſition, ſhe ſeemed indeed to contend with more Vigour againſt *Appetite*, but was generally overwearied in the Conteſt; and if either of her Opponents had confederated with *Habit*, her Authority was wholly at an End. When *Habit* endeavoured to captivate the Votaries of *Religion*, ſhe grew by ſlow degrees, and gave time to eſcape; but in ſeizing the unhappy Followers of *Reaſon*, ſhe proceeded as one that had nothing to fear, and enlarged her Size, and doubled her Chains without Intermiſſion, and without Reſerve.

Of thoſe who forſook the Directions of *Reaſon*, ſome were led aſide by the Whiſpers of *Ambition*, who was perpetually pointing to ſtately Palaces, ſituated on Eminences on either Side, recounting the Delights of Affluence, and boaſting the Security of Power. They were eaſily perſuaded to follow her, and *Habit* quickly threw her Chains upon them; they were ſoon convinced of the Folly of their Choice, but few of them attempted to return. *Ambition* led them forward from Precipice to Precipice, where many fell and were ſeen no more. Thoſe that eſcaped, were, after a long Series of Hazards, generally delivered over to *Avarice*, and enliſted by her in the Service of *Tyranny*, where they continued to heap up Gold till their Patrons or their Heirs puſhed them headlong at laſt into the Caverns of *Deſpair*.

Others were inticed by *Intemperance* to ramble in ſearch of thoſe Fruits that hung over the Rocks, and filled the Air with their Fragrance. I obſerved, that the *Habits* which hovered about theſe ſoon grew to an enormous Size, nor were there any who leſs attempted to return to *Reaſon*, or ſooner ſunk into the Gulphs that lay before them. When theſe firſt quitted the Road, *Reaſon* looked after them with a Frown of Contempt, but had little Expectations of being able to reclaim them; for the Bowl of Intoxication was of ſuch Qualities, as to make them loſe all Regard but for the preſent Moment; neither *Hope* nor *Fear* could enter their Retreats, and *Habit* had ſo abſolute a Power, that even *Conſcience*, if *Religion* had employed her in

their Favour, would not have been able to force an Entrance.

There were others whoſe Crime it was rather to neglect *Reaſon* than to diſobey her, and who retreated from the Heat and Tumult of the Way, not to the Bowers of *Intemperance*, but to the Maze of *Indolence*. They had this Peculiarity in their Condition, that they were always in ſight of the Road of *Reaſon*, always wiſhing for her Preſence, and always reſolving to return to-morrow. In theſe was moſt eminently conſpicuous the Subtlety of *Habit*, who hung imperceptible Shackles upon them, and was every Moment leading them farther from the Road, which they always imagined that they had the Power of reaching. They wandering on from one Double of the Labyrinth to another with the Chains of *Habit* hanging ſecretly upon them, till as they advanced, the Flowers grew paler, and the Scents fainter: they proceeded in their dreary March without Pleaſure in their Progreſs, yet without Power to return; and had this Aggravation above all others, that they were criminal but not delighted. The Drunkard for a time laughed over his Wine; the ambitious Man triumphed in the Miſcarriage of his Rival; but the Captives of *Indolence* had neither Superiority nor Merriment. *Diſcontent* lowred in their Looks, and *Sadneſs* hovered round their Shades; yet they crawled on reluctant and gloomy, till they arrived at the Depth of the Receſs, varied only with Poppies and Nightſhade, where the Dominion of *Indolence* terminates, and the hopeleſs Wanderer is delivered up to *Melancholy*: the Chains of *Habit* are riveted for ever, and *Melancholy* having tortured her Priſoner for a time, conſigns him at laſt to the Cruelty of *Deſpair*.

While I was muſing on this miſerable Scene, my Protector called out to me, 'Remember, *Theodore*, and be wiſe, and let 'not HABIT prevail againſt thee.' I ſtarted, and beheld myſelf ſurrounded by the Rocks of *Teneriffe*; the Birds of Light were ſinging in the Trees, and the Glances of the Morning darted upon me.

Let us now turn our Thoughts to the Paſſions, of which I will not puzzle or embarraſs you with a metaphyſical Account, nor endeavour to diſcover how they are formed in the Mind, or from what Cauſes or Combinations they proceed: but ſhall conſider a few of the moſt uſeful or dangerous of them, as they commonly appear in Human Nature; and give you ſome Rules for their good Regulation.

I will

1. I will begin firſt with *Admiration* or *Wonder*, as it is undoubtedly the firſt Paſſion that is exerciſed in us. The uſe of it is to fix our Attention on the Things about us, whether Natural or Artificial, and to make us conſider and reflect upon them; by which Means we not only come the ſooner to a Knowledge of their Qualities and Uſes, but they are at the ſame time ſo ſtrongly impreſſed upon our Memories, that they are always ready for our Uſe and Application during the whole Courſe of our future Lives. In early Youth, almoſt every Object around us excites our *Admiration*; and if we continue to make Reſearches in the Works of God, we ſhall always find ſomething new, wiſe, great, or ſome way or other ſufficient to raiſe this agreeable Senſation even to our lateſt Period. However, there is a fooliſh Gaze and Wonder at every thing, which is very ridiculous, and ought early to be cured; there is indeed a Time at which it cannot be really avoided, though its Appearance may ſometimes be repreſſed. Our Wonder will for ever be in proportion to our Ignorance, and therefore the only Cure is a large Acquaintance with the Works of Nature and Art, and with the moſt remarkable Occurrences of Human Life, and the Affairs of Mankind: Things will not then ſo frequently appear uncommon or ſurpriſing, as when our Knowledge was narrow and more confined. *Admiration or Wonder.*

2. The next Paſſion I ſhall ſpeak of is *Fear*; as this alſo is very often, by the Weakneſs and Fooliſhneſs of Mothers and Nurſes, raiſed in our Minds before we have any true Notions of Things. The Uſe of this Paſſion is to quicken our Apprehenſions of the Dangers or Evils that threaten us, of whatſoever Kind or Nature, and to excite our Endeavours to avoid them. In this Senſe it is ſo uſeful a Paſſion, that it may be called the Shelter of Life; and is what every prudent Man ſhould make uſe of on all proper Occaſions. Who would not avoid a Precipice? run from a Lion? or, ſubmit to a Band of armed Ruffians? But when it ſo takes Poſſeſſion of our Hearts and Spirits, as to render us cowardly and puſillanimous, incapable of boldly ſtanding up againſt Vice and Injuſtice, or reſolutely ſupporting the Calamities of Life; it then betrays the End of its Inſtitution, and ſubjects us to thoſe very Evils and Dangers, againſt which it was intended to guard us. We are aſſailed alſo by another ſet of Fears, which, if indulged, will render us extremely unhappy. Theſe are the Fear of Spirits, Poverty, Pain or Death. The ſureſt, and indeed the only Means to preſerve one's ſelf from Terrors of this Kind, is to keep a Conſcience free from Self-reproach, *Fear.*

and a Mind perfectly ſubmitted to all the Diſpenſations of Providence. It is this alone can inſpire true and rational Courage; and a Breaſt thus fortified with manly Virtue, has nothing to fear from the Malice of any Power, whether viſible or inviſible; as he will look with a noble Contempt on Poverty, Pain, or Death, whenever the Author of his Nature, or the Integrity of his Heart ſhall call upon him to ſubmit to them. But it is above all to be remembered, that as Fear is not to be totally eradicated, becauſe it has good Uſes, its Uſe is only good when it is proportioned to the Objects that excite it; the Girl that fears an Inſect as if a Lion, is not more contemptible, than he that fears a Lion no more than an Inſect; their Judgment is equally falſe, and the Fool-hardy even of greater Danger. How much then is he to be deſpiſed, who, in the Stile of *Cervantes*, fears a Lizard more than Omnipotence, whoſe leaſt Solicitude is to pleaſe his Maker?

Pride.

3. Another very pernicious Paſſion is *Pride*, which yet was planted by Heaven in our Nature, to raiſe our Emulation to imitate great and worthy Characters or Actions, to excite in us a Zeal for what is right and juſt, and a laudable Indignation againſt Oppreſſors and Workers of any kind of Iniquity; in ſhort, to make us ſet a proper Value on ourſelves, and deſpiſe a worthleſs Fellow, however exalted. Thus far *Pride* is a Virtue, and may juſtly be called a Greatneſs of Soul. But *Pride*, like other Paſſions, generally fixes upon wrong Objects, or is applied in wrong Proportions. How common is it to ſee a Wretch whom every Vice has rendered miſerable, and every Folly contemptible, valuing himſelf on his high Birth, and boaſting thoſe illuſtrious Anceſtors, of whom he inherits nothing but the Name or Title! Anceſtors, who if they knew him, would diſown their Dependent with Contempt, and thoſe who are to be his Succeſſors, if they avoid his Vices, will eraſe his Name from that Pedigree which he boaſts. How oft is Wealth the Source of Pride and Haughtineſs? Yet, can it poſſibly give to its Poſſeſſor either Wiſdom, or Virtue, or Honour? Some pride themſelves in the acquired, and ſome in the natural Qualities of their Minds; ſuch as Learning, Wit, Memory, *&c.* But all Pride of this Sort is Folly; avoid it therefore, as you would the Imputation of want of Senſe. But nothing is more common than for Men to found their Pride of Knowledge upon the Ignorance of how little is really known. If they ſaw the Extent of Science, they would know that what they have acquired is nothing to that which remains; and that they are only conſidered as learned, becauſe they have yet only found Admiſſion amongſt the Ignorant. Virtue and

and uſeful Knowledge are the only genuine Diſtinctions which can render one Man ſuperior to another; and take it for a Rule, the more any one poſſeſſes of thoſe two glorious Qualities, the leſs he will be capable of looking down with Inſolence and Contempt on others.

Anger.

4. How miſchievous, and how deſtructive to our Peace is the Paſſion of Anger! Yet how neceſſary is it that a proper Portion of it ſhould on ſome Occaſions animate the Heart and raiſe the Spirit of Man! There is a certain manly Reluctance which ought to riſe in the Breaſt of every one againſt Oppreſſion and Injuſtice. But this is not to break out either in the cruel and impious Methods of bloody Revenge, and what is moſt falſely called *Honourable Satisfaction*, or in the baſe Means of ſecret Malice; but in an open and honeſt Indignation againſt the Wrong-doer. On the other hand, if you ſuffer yourſelf to be tranſported with Paſſion on every trifling Occaſion, ſuch as little Rudeneſſes, the Miſtakes of Servants, or the ſlighteſt Contradictions of your Friends and Acquaintance, your whole Life will be a continued Scene of Uneaſineſs and Vexation; you will become tyrannical to your Dependents, offenſive to your Superiors, and hated of thoſe who are expoſed to your Follies, and the Deriſion of thoſe who are above your Reach. Conſider, there are but few Things, very few, that are worth a wiſe Man's Anger; and even in thoſe few, if he is a prudent or good-natured Man, he will temper his Paſſion with Reaſon.

Love.

The next Paſſion I ſhall recommend to your moſt cautious Regulation is *Love:* A Paſſion of all others the moſt apt to be improperly cheriſhed in the Heart of Youth. Remember therefore to guard againſt its firſt Impreſſions, with the higheſt Attention. What Follies, what Exceſſes, what Madneſſes do young Men commit for the Sake of indulging this Paſſion! What Pain, what Miſery, what Remorſe and Shame, perpetually follow the looſe and licentious Gratifications of it! Endeavour therefore (I repeat it again) to the utmoſt of your Power, to check and govern it by the Reſtraints of Prudence and Virtue: If not, you muſt for ever bid adieu to Health, to Fortune, and to Happineſs.

I might proceed to ſome of the other Paſſions, but theſe I think are the Principal; and as I clos'd the laſt Part with a modern Allegory, ſo I chuſe to finiſh and illuſtrate this with one of the moſt beautiful Fables in all Antiquity.

The CHOICE of *Hercules.*

I.

NOW had the Son of *Jove* mature, attain'd
The joyful Prime: when Youth elate and gay,
Steps into Life; and follows unreſtrain'd
Where Paſſion leads, or Prudence points the Way.
In the pure Mind, at thoſe ambiguous Years,
Or Vice, rank Weed, firſt ſtrikes her pois'nous Root;
Or haply Virtue's op'ning Bud appears
By juſt Degrees; fair Bloom of faireſt Fruit:
For, if on Youth's untainted Thought impreſt,
The gen'rous Purpoſe ſtill ſhall warm the manly Breaſt.

II.

As on a Day, reflecting on his Age
For higheſt Deeds now ripe, Alcides ſought
Retirement; Nurſe of Contemplation ſage;
Step following Step, and Thought ſucceeding Thought:
Muſing, with ſteady Pace the Youth purſu'd
His Walk; and loſt in Meditation ſtray'd
Far in a lonely Vale, with Solitude
Converſing; while intent his Mind ſurvey'd

The

ious Path of Life: before him lay
e's rough Aſcent, there Pleaſure's flow'ry Way.

III.

Much did the View divide his wav'ring Mind:
Now glow'd his Breaſt with generous Thirſt of Fame;
Now Love of Eaſe to ſofter Thoughts inclin'd
His yielding Soul, and quench'd the riſing Flame.
When, lo! far off two Female Forms he ſpies;
Direct to him their Steps they ſeem to bear:
Both large and tall, exceeding human Size;
Both, far exceeding human Beauty, fair.
Graceful, yet each with different Grace, they move:
This, ſtriking ſacred Awe; that, ſofter, winning Love.

IV.

The firſt, in native Dignity ſurpaſs'd;
Artleſs and unadorn'd ſhe pleas'd the more:
Health, o'er her Looks a genuine Luſtre caſt:
A Veſt, more white than new-fall'n Snow ſhe wore.
Auguſt ſhe trod, yet modeſt was her Air;
Serene her Eye, yet darting heav'nly Fire.
Still ſhe drew near; and nearer ſtill more fair,
More mild appear'd: yet ſuch as might inſpire
Pleaſure corrected with an awful Fear;
Majeſtically ſweet, and amiably ſevere.

V.

The other Dame ſeem'd ev'n of fairer Hue;
But bold her Mien; unguarded rov'd her Eye:
And her fluſh'd Cheeks confeſs'd at nearer View
The borrow'd Bluſhes of an artful Dye.
All ſoft and delicate, with airy Swim
Lightly ſhe danc'd along; her Robe betray'd

Thro' the clear Texture every tender Limb,
Height'ning the Charms it only ſeem'd to ſhade:
And as it flow'd adown, ſo looſe and thin,
Her Stature ſhew'd more tall; more ſnowy-white her Skin.

VI.

Oft with a Smile ſhe view'd herſelf aſkance;
Ev'n on her Shade a conſcious Look ſhe threw:
Then all around her caſt a careleſs Glance,
To mark what gazing Eyes her Beauty drew.
As they came near, before that other Maid
Approaching decent, eagerly ſhe preſs'd
With haſty Step: nor of Repulſe afraid,
With Freedom bland the wond'ring Youth addreſs'd:
With winning Fondneſs on his Neck ſhe hung;
Sweet as the Honey-dew flow'd her enchanting Tongue.

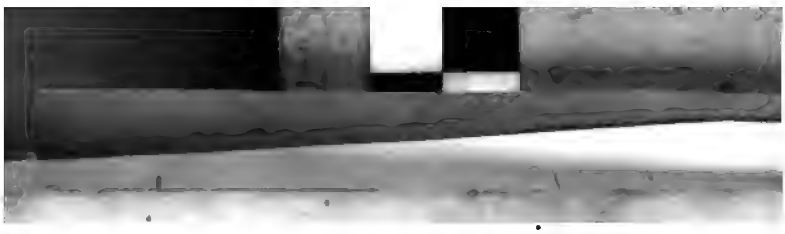
VII.

"Dear *Hercules*, whence this unkind Delay?
"Dear Youth, what Doubts can thus diſtract thy Mind?
"Securely follow where I lead the Way;
"And range thro' Wilds of Pleaſure unconfin'd.
"With me retire, from Noiſe, and Pain, and Care;
"Embath'd in Bliſs, and wrapt in endleſs Eaſe:
"Rough is the Road to Fame, thro' Blood and War;
"Smooth is my Way, and all my Paths are Peace.
"With me retire, from Toils and Perils free;
"Leave Honour to the Wretch! Pleaſures were made for thee.

VIII.

"Then will I grant thee all thy Soul's Deſire;
"All that may charm thine Ear, and pleaſe thy Sight:
"All that thy Thought can frame, or Wiſh require,
"To ſteep thy raviſh'd Senſes in Delight.

"The



" The ſumptuous Feaſt, enhanc'd with Muſic's Sound;
" Fitteſt to tune the melting Soul to Love:
" Rich Odours, breathing choiceſt Sweets around;
" The fragrant Bow'r, cool Fountain, ſhady Grove:
" Freſh Flowers, to ſtrew thy Couch, and crown thy Head;
" Joy ſhall attend thy Steps, and Eaſe ſhall ſmooth thy Bed.

IX.

" Theſe will I freely, conſtantly ſupply;
" Pleaſures, nor earn'd with Toil, nor mix'd with Woe:
" Far from thy Reſt repining Want ſhall fly;
" Nor Labour bathe in Sweat thy careful Brow.
" Mature the copious Harveſt ſhall be thine;
" Let the laborious Hind ſubdue the Soil:
" Let the raſh Soldier Spoils of War to win;
" Won by the Soldier thou ſhalt ſhare the Spoil:
" Theſe ſofter Cares my bleſt Allies employ,
" New Pleaſures to invent; to wiſh, and to enjoy."

X.

Her winning Voice the Youth attentive caught:
He gaz'd impatient on the ſmiling Maid;
Still gaz'd, and liſten'd: then her Name beſought.
" My Name, fair Youth, is Happineſs, ſhe ſaid:
" Well can my Friends this envy'd Truth maintain:
" They ſhare my Bliſs; they beſt can ſpeak my Praiſe:
" Tho' Slander call me *Sloth*—Detraction vain!
" Heed not what Slander, vain Detractor, ſays:
" Slander, ſtill prompt true Merit to defame;
" To blot the brighteſt Worth, and blaſt the faireſt Name."

XI.

By this, arriv'd the fair majeſtic Maid:
(She all the while, with the ſame modeſt Pace,

Com-

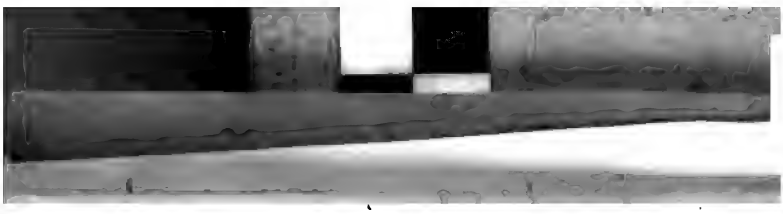
Compos'd advanc'd.) " Know, *Hercules*," ſhe ſaid
With manly Tone, " thy Birth of heav'nly Race;
" Thy tender Age that lov'd Inſtruction's Voice,
" Promis'd thee generous, patient, brave, and wiſe;
" When Manhood ſhould confirm thy glorious Choice:
" Now Expectation waits to ſee thee riſe.
" Riſe, Youth! exalt thyſelf, and me: approve
" Thy high Deſcent from Heav'n; and dare be worthy *Jove*.

XII.

" But what Truth prompts, my Tongue ſhall not diſguiſe;
" The ſteep Aſcent muſt be with Toil ſubdu'd:
" Watchings and Cares muſt win the lofty Prize
" Propos'd by Heav'n; true Bliſs, and real Good.
" Honour rewards the Brave and Bold alone;
" She ſpurns the Timorous, Indolent, and Baſe:
" Danger and Toil ſtand ſtern before her Throne;
" And guard (ſo *Jove* commands) the ſacred Place.
" Who ſeeks her muſt the mighty Coſt ſuſtain,
" And pay the Price of Fame; Labour, and Care, and Pain.

XIII.

" Wou'dſt thou engage the Gods peculiar Care?
" O *Hercules*, th' immortal Powers adore!
" With a pure Heart, with Sacrifice and Pray'r
" Attend their Altars; and their Aid implore.
" Or wou'dſt thou gain thy Country's loud Applauſe,
" Lov'd as her Father, as her God ador'd?
" Be thou the bold Aſſertor of her Cauſe;
" Her Voice, in Council; in the Fight, her Sword.
" In Peace, in War, purſue thy Country's Good:
" For her, bare thy bold Breaſt; and pour thy generous Blood.



XIV.

" Woud'ſt thou, to quell the Proud and lift th' Oppreſt,
" In Arts of War and matchleſs Strength excel?
" Firſt conquer thou thyſelf. To Eaſe, to Reſt,
" To each ſoft Thought of Pleaſure, bid farewel.
" The Night alternate, due to ſweet Repoſe,
" In Watches waſte; in painful March, the Day:
" Congeal'd, amidſt the rigorous Winter's Snows;
" Scorch'd by the Summer's thirſt-inflaming Ray,
" Thy harden'd Limbs ſhall boaſt ſuperior Might:
" Vigour ſhall brace thine Arm, reſiſtleſs in the Fight."

XV.

" Hear'ſt thou, what Monſters then thou muſt engage;
" What Dangers, gentle Youth, ſhe bids thee prove?"
(Abrupt ſays *Sloth:*) " ill fit thy tender Age
" Tumult and Wars; fit Age, for Joy and Love.
" Turn, gentle Youth, to me, to Love and Joy!
" To theſe I lead: no Monſters here ſhall ſtay
" Thine eaſy Courſe: no Cares thy Peace annoy:
" I lead to Bliſs a nearer, ſmoother Way.
" Short is my Way; fair, eaſy, ſmooth, and plain:
" Turn, gentle Youth! with me eternal Pleaſures reign."

XVI.

" What Pleaſures, vain miſtaken Wretch, are thine!"
(*Virtue* with Scorn reply'd:) " who ſleep'ſt in Eaſe
" Inſenſate; whoſe ſoft Limbs the Toil decline
" That ſeaſons Bliſs, and makes Enjoyment pleaſe.
" Draining the copious Bowl, ere Thirſt require;
" Feaſting, ere Hunger to the Feaſt invite:
" Whoſe taſteleſs Joys anticipate Deſire;
" Whom Luxury ſupplies with Appetite:

" Yet

" Yet Nature loaths; and you employ in vain
" Variety and Art to conquer her Diſdain.

XVII.

" The ſparkling Nectar cool'd with Summer Snows;
" The dainty Board, with choiceſt Viands ſpread;
" To thee are taſteleſs all! ſincere Repoſe
" Flies from thy flow'ry Couch, and downy Bed.
" For thou art only tir'd with Indolence:
" Nor is thy Sleep with Toil and Labour bought;
" Th' imperfect Sleep, that lulls thy languid Senſe
" In dull oblivious Interval of Thought:
" That kindly ſteals th' inactive Hours away
" From the long, ling'ring Space, that lengthens out the Day.

XVIII.

" From bounteous Nature's unexhauſted Stores
" Flows the pure Fountain of ſincere Delights:
" Averſe to her, you waſte the joyleſs Hours;
" Sleep drowns thy Days, and Riot rules the Nights.
" Immortal tho' thou art, indignant *Jove*
" Hurl'd thee from Heaven, th' Immortals bliſsful Place;
" For ever baniſh'd from the Realms above,
" To dwell on Earth, with Man's degenerate Race:
" Fitter Abode! on Earth alike diſgrac'd;
" Rejected by the Wiſe, and by the Fool embrac'd.

XIX.

" Fond Wretch, that vainly weeneſt all Delight
" To gratify the Senſe reſerv'd for thee!
" Yet the moſt pleaſing Object to the Sight,
" Thine own fair Action, never didſt thou ſee.

" Tho'

" Tho' lull'd with ſofteſt Sounds thou lieſt along;
" Soft Muſic, warbling Voices, melting Lays:
" Ne'er didſt thou hear, more ſweet than ſweeteſt Song
" Charming the Soul, thou ne'er didſt hear thy Praiſe!
" No —— to thy Revels let the Fool repair:
" To ſuch, go ſmooth thy Speech; and ſpread thy tempting ſnare.

XX.

" Vaſt Happineſs enjoy thy gay Allies!
" A Youth of Follies; an old Age, of Cares:
" Young, yet enervate; old, yet never wiſe;
" Vice waſtes their Vigour, and their Mind impairs.
" Vain, idle, delicate, in thoughtleſs Eaſe,
" Reſerving Woes for Age, their Prime they ſpend;
" All wretched, hopeleſs, in the evil Days,
" With Sorrow to the Verge of Life they tend.
" Griev'd with the Preſent; of the Paſt aſham'd;
" They live, and are deſpis'd: they die, nor more are nam'd.

XXI.

" But with the Gods, and God-like Men, I dwell;
" Me, his ſupreme Delight, th' Almighty Sire
" Regards well-pleas'd: whatever Works excel,
" All or Divine, or Human, I inſpire.
" Counſel with Strength, and Induſtry with Art,
" In Union meet conjoin'd, with me reſide:
" My Dictates arm, inſtruct, and mend the Heart;
" The ſureſt Policy, the wiſeſt Guide.
" With me true Friendſhip dwells: She deigns to bind
" Thoſe generous Souls alone, whom I before have join'd.

XXII.

Unmov'd in Toils, in Dangers undiſmay'd,
By many a hardy Deed and bold Emprize,
From fierceſt Monſters, thro' her pow'rful Aid,
He free'd the Earth: thro' her he gain'd the Skies.
'Twas Virtue plac'd him in the bleſt Abode;
Crown'd, with eternal Youth: among the Gods, a God.

This Fable was compoſed by *Prodicus*, and is related by *Xenophon* in his *Memorable Things* of *Socrates*. As it has been admired by all good Judges for upwards of two thouſand Years, and is one of thoſe plain, yet elegant Compoſitions that will pleaſe for ever; it is here cloath'd in a new Dreſs by a very eminent Hand, and retains all the native Elegance and Simplicity of the Proſe Original, heighten'd with all the Graces of Poetical Ornament. But I will now proceed to the *third* Rule, which I laid down for the Attainment of Human Happineſs, which you may remember was the Acquiſition of wiſe and prudent SENTIMENTS and OPINIONS.

What I mean by wiſe and prudent *Sentiments* and *Opinions*, with regard to the Concerns of Life, is the being able to form a true Judgment, not only of what Things are conducive to Human Happineſs, but alſo in what Degree they are conducive to it, in order to ſet an exact and juſt Value upon them. This Knowledge will beſt be obtained by conſidering on every Occaſion, whether the preſent Pleaſure which you are about to enjoy, may not in its Conſequences be deſtructive of ſome greater Pleaſure; or whether it may not produce ſome Pain or Uneaſineſs, which will more than balance the preſent Enjoyment. For inſtance, no Pleaſure that can be enjoyed in Wine or Women, or any kind of Senſuality and Voluptuouſneſs, can equal the Enjoyment, or recompenſe the Loſs of Health and Innocence; and therefore, neither Wine, nor Women, nor any kind of Senſuality, ſhould be purſued at the Hazard of the moſt ineſtimable Treaſures. The Elegancies of Dreſs are Pleaſures not altogether unworthy the Care and Attention of a wiſe Man, as they render him agreeable to himſelf and others; as they are Proofs of his Rank, and a ſilent Intimation to

others

thers of the Reſpect with which they are to treat him, and herefore one of the Inſtruments of Regulation, by which the arious Subordinations of Life are adjuſted and maintained: ut he, who turns all his Thoughts upon Finery, and is every ay trimmed out in Gold and Brocade, has formed a wrong udgment of Dreſs, and will undoubtedly be deſpiſed as acting ie moſt contemptible of all Characters, that of a Coxcomb. gain, Diverſions and Amuſements of every innocent kind, ay juſtly be allowed to conſtitute a Part of Human Happieſs; but if they are purſued at too great an Expence for your ircumſtances, or ſo as to take up more of your Time than is onſiſtent with your other more rational Purſuits, or to ſuch degree as to diſſipate your Mind, and to render you unfit or Study or Buſineſs; inſtead of affording you Happineſs, ou will find they conduct you only to Miſery. I could go n to ſhew you the Importance of acquiring right *Sentiments* i many other Inſtances, but I will cloſe the whole of my Inructions to you on this Head, and finiſh your Education in eneral with the celebrated *Picture of Human Life*, by *Cebes* the *heban*, a Diſciple of *Socrates*, and one of thoſe who aſſiſted im in his laſt Hours; which I earneſtly recommend to your ioſt ſerious Study and frequent Peruſal. It is tranſlated into *ngliſh*, by a Perſon conſiderably diſtinguiſhed in the Republic f Letters, and is as follows.

The Picture of Human Life.

ranſlated from the Greek *of* Cebes, *a Diſciple of* Socrates.

AS we were walking in the Temple of *Saturn*, and obſerving ſeveral of the Preſents dedicated to that God, e were particularly ſtruck with a Picture, hung up before one the Chapels. Both the Manner and the Subject of it, ſeemed be foreign; ſo that we were at a loſs to know, either hence, or what it was. What is repreſented was neither a ity, nor a Camp; but an Incloſure, containing two other icloſures, the one larger, and the other leſs. To the outer icloſure, there was a Portal, with a great Number of Perſons inding before it, and ſeveral Females within; and an aged lan ſtanding by the Portal, in the Attitude of giving Direcons to thoſe who were going in.

After we had been debating among ourſelves for ſome ne, what all theſe Things ſhould mean; an elderly Per-

ſon, who happened to be by, addreſſed himſelf to us in the following manner.

Old Citizen. As you are Strangers, it is no Wonder that you ſhould be at a loſs to find out the Meaning of this Picture; ſince ſeveral of the Natives of this City themſelves know not the true Intent of it: And indeed it was not placed here by any of our Citizens, but by a Stranger who viſited theſe Parts ſeveral Years ago. He was a very ſenſible Man, and a great Philoſopher; and both in his Converſation and Practice, ſeemed to approach nearer to the Doctrines of *Pythagoras* and *Parmenides*, than to any other of our Sects. It was he who built this Temple, and dedicated this Picture in it to *Saturn*.

Stranger. Have you then ſeen the very Perſon who gave it? and was you acquainted with him?

O. C. Yes, I was both well acquainted with him, and admired him very much; for though he was rather young, his Converſation was full of Wiſdom; and, among other Things, I have often heard him explaining the Subject of the Picture before us.

S. I intreat you, if it will not be too troubleſome, to acquaint us with his Explanation of it; for 'tis what we are all longing to know.

O. C. That would be rather a Pleaſure than any Trouble to me; but I ought to forewarn you of one thing before I begin, which is this, that the hearing it is attended with ſome Danger.

S. What Danger can there be in that?

O. C. It is no leſs than this, that if you obſerve and follow the Leſſon that it gives you, it will make you wiſe and happy; but if you neglect it, you will be moſt miſerable and wretched all your Days. So that the explaining of this, is not unlike the Riddle ſaid to have been propoſed to People by the Sphynx, which if the Hearer underſtood, he was ſaved; but if not, he was to be deſtroy'd It is much the ſame in the preſent Caſe; for Ignorance is full as dangerous in Life, as the Sphynx was ſuppoſed to be in the Fable. Now the Picture before us includes all the Doctrine of what is Good in Life, what is Bad, and what Indifferent; ſo that if you ſhou'd take it wrong, you will be deſtroy'd by it; not indeed all at once, as the People were by that Monſter; but by little and little, thro' all the Reſidue of your Life, as thoſe are who are given up to be put to Death by ſlow Tortures. On the contrary, if you underſtand it aright, then will your Igno-

rance

rance be deſtroy'd, and you will be ſav'd, and become happy and bleſt for all the reſt of your Days. Do you, therefore, attend carefully to what I ſhall ſay to you, and obſerve it as you ought.

S. O Heavens, how have you increaſed our longing to hear, what may be of ſuch very great Importance to us!

O. C. It is certainly of the greateſt that can be.

S. Explain it then to us immediately, we beſeech you; and be aſſured, that we will liſten to you with all the Care and Attention, that a Matter which concerns us ſo greatly muſt demand.

O. C. You ſee, this grand Incloſure. All this Circuit, is the CIRCUIT OF HUMAN LIFE, and that great Number of People ſtanding before the Portal, are thoſe who are to enter into Life. This aged Perſon, who ſtands by the Entrance holding a Paper in one of his Hands, and pointing with the other, is the GENIUS who directs all that are going in, what they ſhould do after they are enter'd into Life; and ſhews them which Way they ought to take in order to be happy in it.

S. And which is the Way that he ſhews them? Where is it?

O. C. Do you ſee that Seat on the other Side, before the Portal; and the Woman ſitting on it, with a Cup in her Hand? She who is ſo finely dreſs'd out, and makes ſo plauſible an Appearance?

S. I ſee her; and pray, who is ſhe?

O. C. She is DECEIT, the Miſleader of Man.

S. And what does ſhe do there?

O. C. As they are entering into Life, ſhe offers them to drink of her Cup.

S. And what does her Cup contain?

O. C. Ignorance and Error; of which when they have drunk, they enter into Life.

S. And do all drink of this Cup?

O. C. All drink of it; but ſome more, and ſome leſs. A little farther, within the Portal, don't you ſee a Company of looſe Women, with a great deal of Variety both in their Dreſs and Airs?

S. I ſee them.

O. C. Thoſe are the OPINIONS, DESIRES, and PLEASURES; who, as the Multitude enter, fly to them; embrace each of them with great Earneſtneſs; and then lead them away with them.

S. And whither do they lead them?

O. C. Some to the Way of Safety; and others to Perdition through their Folly.

S. Ah, why did they drink of that Liquor before they came in!

O. C. All of them alike tell thoſe whom they are embracing, that they will lead them to what is beſt, and will make their Lives quite happy: whilſt the Comers blinded by the large Draughts they have taken from the Cup of DECEIT, are incapable of diſtinguiſhing which is the true Way in Life; and wander about inconſiderately, here and there, as you ſee they do. You may obſerve too, that they who have been in ſome time, go about juſt as theſe direct them.

S. They do ſo. But, pray, who is that Woman who ſeems to be both blind and mad, and who ſtands on that round Stone there?

O. C. That is FORTUNE; and ſhe is really not only mad and blind, but deaf too.

S. What can her Buſineſs be?

O. C. She flies about every where, and ſnatches what he has from one, to give it to another; and then takes it away again from him, to give it to a third; without any manner of Meaning, or any Degree of Certainty: which latter is very aptly ſignified by her Figure here.

S. How ſo?

O. C. By her ſtanding on that round Stone, which ſhews that there is no Stability or Security in her Favours; as all who truſt to her find, by ſome great and unexpected Fall.

S. And what does all that Company about her want of her? And how are they called?

O. C. They are called THE INCONSIDERATES, and are begging for ſome of thoſe Things which ſhe flings about her.

S. And why do they appear with ſuch a Diverſity of Paſſions? Some of them as overjoy'd, and others as very much diſtreſt?

O. C. They who ſmile and rejoice, are ſuch as have receiv'd ſomething from her Hand; and theſe call her by the Title of GOOD FORTUNE: and ſuch as weep and mourn, are they from whom ſhe has reſum'd what ſhe had before given them; and theſe call her BAD FORTUNE.

S. And

S. And what is it ſhe gives, that ſhou'd make the former rejoice ſo much on the receiving it, and the latter lament ſo much at the Loſs of it?

O. C. All thoſe Things which the greateſt Part of Mankind think good, ſuch as Wealth, and Glory, and Nobility, and Offspring, and Dignities, and Crowns; and all ſuch Sort of Things.

S. And are not theſe really good Things?

O. C. As to that we may talk more at large another time; but at preſent, if you pleaſe, let us ſtick to our Picture. You ſee then, after entering this Portal, there is another Incloſure, on a rais'd Ground, and ſeveral Women ſtanding before it, dreſs'd out too, much like Ladies of Pleaſure.

S. They are ſo.

O. C. Of theſe, this is INTEMPERANCE; that LUXURY; this is AVARICE; and that other, FLATTERY.

S. And what do they ſtand there for?

O. C. They are waiting for thoſe who have receiv'd any thing from FORTUNE; and as they meet with them, they embrace them with the greateſt Fondneſs, attach themſelves to them, do every thing they can to pleaſe them, and beg them to ſtay with them; promiſe them to render their whole Lives delightful, eaſy, and free from all manner of Care or Trouble. Now whoever is carried away by them to VOLUPTUOUSNESS, will find their Company agreeable to him at firſt, whilſt they are fondling and tickling his Paſſions; but it is ſoon quite otherwiſe; for when he recovers his Senſes, he perceives that he did not enjoy them, but was enjoy'd by them; and that they prey upon him, and deſtroy him. And when he has, by their means, conſum'd all that he had receiv'd from FORTUNE, then is he oblig'd to become their Slave, and to bear all the Inſults they are pleaſed to impoſe upon him, to yield to all the moſt ſcandalous Practices, and in the end, to commit all Sorts of Villainies for their Sake; ſuch as Betraying, Defrauding, Robbing, Sacrilege, Perjury, and the like: and when all theſe fail him, then is he given up to PUNISHMENT.

S. And where is ſhe?

O. C. Don't you ſee there, a little beyond thoſe Women, a narrow dark Cavern, with a ſmall Sort of Door to it, and ſome miſerable Women that appear within, clad only in Filth and Rags?

S. I ſee them.

O. C. She who holds up the Scourge in her Hand, is PUNISHMENT; this, with her Head ſunk almoſt down to her Knees, is SORROW; and that other tearing her Hair, is ANGUISH OF MIND.

S. And pray, who is that meagre Figure of a Man without any Cloaths on, juſt by them? And that lean Woman, that reſembles him ſo much in her Make and Face?

O. C. Thoſe are REPINING, and his Siſter DESPAIR. To all theſe is the Wretch I was ſpeaking of deliver'd up, and lives with them in Torments, till finally he is caſt into the Houſe of MISERY; where he paſſes the Remainder of his Days in all kinds of Wretchedneſs; unleſs, by chance, REPENTANCE ſhould fall in his way.

S. What happens then?

O. C. If REPENTANCE ſhould chance to meet with him, ſhe will take him out of the evil Situation he was in, and will place a different OPINION and DESIRE before him: one, of thoſe which lead to TRUE SCIENCE; and the other, of thoſe which lead to SCIENCE falſly ſo called.

S. And what then?

O. C. If he embraces that which leads to TRUE SCIENCE, he is renew'd and ſav'd, and becomes a happy Man for all his Days; but if the other, he is bewilder'd again by FALSE SCIENCE.

S. Good Heaven! what a new Danger do you tell me of! And pray, which is FALSE SCIENCE?

O. C. Do you ſee that ſecond Incloſure?

S. Very plainly.

O. C. And don't you ſee a Woman ſtanding without the Incloſure, juſt by the Entrance into it, of a very ſtriking Appearance, and very well dreſs'd?

S. As plainly.

O. C. That is ſhe whom the Multitude, and all the unthinking Part of Mankind, call by the Name of Science; tho' ſhe is really FALSE SCIENCE. Now thoſe who are ſav'd out of the Houſe of MISERY call in here, in their Paſſage to TRUE SCIENCE.

S. Is there then no other Way to TRUE SCIENCE but this?

O. C. Yes, there is.

S. And pray, who are thoſe Men that are walking to and fro within the Incloſure?

O. C. Thoſe who have attach'd themſelves to Falſe Science, miſtaking her for the True.

S. And what are they?

O. C. Some

O. C. Some of them are Poets, ſome Rhetoricians, ſome Logicians, ſome Students in Muſic, Arithmetic, and Geometry: Pleaſuriſts, Peripatetics, Critics, and ſeveral others of the ſame Rank.

S. And who are thoſe Women who ſeem ſo buſy among them, and are ſo like INTEMPERANCE, and her Companions, in the firſt Incloſure?

O. C. They are the very ſame.

S. Are they then admitted into this ſecond Incloſure?

O. C. Yes indeed; but not ſo readily, or frequently, as in the firſt.

S. And are the OPINIONS too admitted?

O. C. Undoubtedly; for the Perſons who belong to this Incloſure, have not yet got rid of the Draught which they took out of the Cup of DECEIT.

S. What then, IGNORANCE remains ſtill with them?

O. C. That it does, and FOLLY too; nor can they get rid of the OPINIONS, nor all the reſt of this vile Train, till they quit Falſe Science, and get into the Way of the True; til they drink of her purifying Liquor, and waſh away all the Dregs of the Evils that remain in them; which that, and that only, is capable of doing. Such therefore as fix their Abode with Falſe Science will never be delivered; nor can all their Studies clear them from any one of thoſe Evils.

S. Which then is the Way to TRUE SCIENCE?

O. C. Do you ſee that Place on high there, that looks as if it were uninhabited?

S. I do.

O. C. And do you diſcern a little Opening between the Rocks, and a ſmall Track leading to it, which is ſcarce beaten; and with very few People walking in it, as it is all rough, and ſtony, and difficult?

S. I diſcern it very plainly.

O. C. And don't you ſee a high Cliff on the Hill, almoſt inacceſſible, and with ſeveral Precipices about it?

S. I ſee it.

O. C. That is the Way which leads to TRUE SCIENCE?

S. It is frightful only to look upon it.

O. C. And up above that Cliff, don't you ſee a large riſing Rock, all ſurrounded with Precipices?

S. I ſee it.

O. C. Then you ſee alſo the two Women that ſtand upon it, with ſo much Firmneſs and Beauty in their Make, and how earneſtly they extend their Hands.

S. I do ſo; and pray, who are they?

O. C. Thoſe two are Siſters, and are called TEMPERANCE and PERSEVERANCE.

S. And why do they extend their Hands ſo earneſtly?

O. C. They are encouraging thoſe who are arriv'd to that Rock, and calling out to them to be of good Heart, and not to deſpond, becauſe they have but a little more to ſuffer, and then will find the Road all eaſy and pleaſant before them.

S. But how can they ever get up upon that Rock itſelf? for I don't ſee any the leaſt Path to aſcend it by.

O. C. The two Siſters deſcend to meet them, and help them up. Then they order them to reſt a little, inſpire them with new Strength and Reſolution, and promiſe to conduct them to TRUE SCIENCE; point out the Way to them, make them obſerve how even and eaſy, and charming it is; and how free from all manner of Difficulty or Danger, as you ſee it repreſented here.

S. How well does it anſwer the Deſcription!

O. C. You ſee before that Grove, the Ground that extends itſelf into a beautiful Meadow, with ſuch a lively Light over it.

S. Very plainly.

O. C. Then you ſee the third Incloſure, in the Midſt of that Meadow, and the Portal to it.

S. I do ſo; and pray, what do you call this Place?

O. C. The Habitation of the Bleſt; for here it is that HAPPINESS, and all the VIRTUES dwell.

S. What a charming Place have they to dwell in!

O. C. And do you obſerve the Lady near the Portal, with ſo beautiful and ſteady a Look; of a middle Age, or rather a little paſt it, and dreſs'd in a long plain Robe, without any the leaſt Affectation of Ornaments? She is ſtanding there, not on a round Stone, but a ſquare one, firmly fix'd in the Ground; and by her are two other Women, who look as if they were her Daughters.

S. They do ſo.

O. C. Of theſe, ſhe in the Midſt is SCIENCE, and the other two are TRUTH and PERSUASION.

S. And why does SCIENCE ſtand on that ſquare Stone?

O. C. To ſignify, that her Ways are Ways of Certainty, and that the Preſents which ſhe gives to thoſe that arrive to her, are firm and laſting.

S. And

S. And what is that ſhe gives to them?

O. C. Strength and Tranquility of Mind, ariſing from a full Aſſurance, that they ſhall never undergo any Evil again in their whole Lives.

S. O Heavens, how deſireable are her Preſents! But why does ſhe ſtand thus without the Incloſure?

O. C. To receive thoſe that arrive thither, and give them to drink of her purifying Liquor, and to conduct them into the Preſence of the VIRTUES within, when they are thoroughly cleans'd by it.

S. I don't rightly underſtand what you mean by this cleanſing.

O. C. I will make that clear to you. Suppoſe any Friend of yours was afflicted with ſome dangerous Fit of Illneſs; if he goes to ſome knowing Phyſician, and takes what he preſcribes, in order to root out the Cauſes of his Diſeaſe, he may be reſtored to a perfect State of Health; but if he refuſes to take what is ordered him, his Phyſician will give him up, and leave him to be deſtroyed by his Diſtemper.

S. That is clear enough.

O. C. In the very ſame manner, when any one comes to SCIENCE, ſhe takes him under her Care, and gives him a Draught of her Cup to cleanſe him, and drive out all the noxious Things that are in him.

S. And what are thoſe noxious Things?

O. C. The Error and Ignorance that he drank out of the Cup of DECEIT; and his Arrogance, and Luſt, and Intemperance, and Anger, and Covetouſneſs; in ſhort, all the evil Impreſſions and Habits that he had contracted in his Paſſage thro' the firſt Incloſure.

S. And when ſhe has cleanſed him from all theſe, whither does ſhe ſend him?

O. C. In thro' that Portal, to KNOWLEDGE, and the other VIRTUES.

S. And where are they?

O. C. Don't you ſee, within the Portal, a ſelect Company of Ladies, of ſingular Beauty and Decency, both in their Look and Dreſs; and in a word, with every thing handſome, and nothing affected about them?

S. I ſee them, and ſhould be glad to know their Names.

O. C. That at the Head of them is KNOWLEDGE, and the reſt are all her Siſters, FORTITUDE, JUSTICE, HONESTY,

TY, PRUDENCE, DECENCY, FREEDOM, TEMPERANCE, and CLEMENCY.

S. What Beauties they are! and what a longing Deſire do they inſpire one with to enjoy their Companies!

O. C. That you may do, if you are wiſe enough to follow the Way that I have ſhown you.

S. That will I ſtrive to do, as far as I am able.

O. C. Then you will arrive ſafely to them.

S. And when theſe have received any one, whither do they carry him?

O. C. To their Mother.

S. And who is ſhe?

O. C. HAPPINESS.

S. And where?

O. C. Do you ſee the Way which leads to that high Edifice, which appears above all the Incloſures, as a Citadel does above all the Buildings in a City!

S. Yes.

O. C. And do you ſee that compoſed, beautiful Lady, ſitting on a Throne in the Portico to it, with ſo eaſy and diſengaged an Air, and with that beautiful Chaplet of freſh Flowers on her Head?

S. How beautiful does ſhe look!

O. C. She is HAPPINESS.

S. And when any one arrives to her, what does ſhe do to him?

O. C HAPPINESS, aſſiſted by all the Virtues, crowns him with her own Influences; in the ſame manner as they are crowned, who have obtained the greateſt Conqueſts.

S. But what Conqueſts has he obtained?

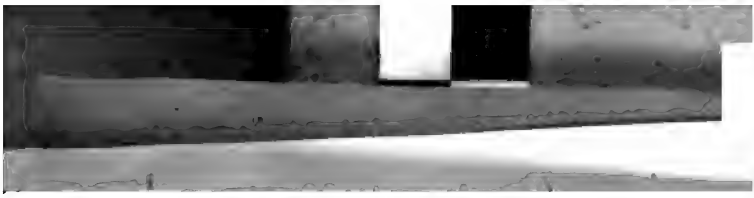
O. C. The greateſt Conqueſts, and over the moſt terrible of Monſters, which formerly devoured, and tormented, and enſlaved him. All theſe has he conquered, and driven from him; and is become ſo much Maſter both of himſelf and them, as to make thoſe things obey him, which he himſelf obeyed before.

S. I don't yet comprehend what Monſters you mean; and ſhould be very glad to know.

O. C. In the firſt place, his Ignorance and Error; will you not allow them to be Monſters?

S. Yes, and very dangerous ones too.

O. C. Then, his Sorrows, and Repinings, and Covetings, and Intemperance, and every thing that is bad. All theſe



has he ſubdued, and is not ſubdued by them as he uſed to be.

S. O glorious Exploits! and moſt noble of all Victories! But be ſo good as to inform me yet farther, what may be the Influence of the Crown, with which you were ſaying he was to be crowned?

O. C. It is that which renders him happy: for he who has it once on his Head, immediately becomes eaſy and bleſt; and does not place his Hopes of Happineſs in any thing without him, but poſſeſſes it in his own Breaſt.

S. How deſireable is ſuch an Acquiſition! And after he is crowned, what does he do? or whither does he go?

O. C. The VIRTUES take him, and lead him to the Place that he had left, and bid him obſerve thoſe who continue there, amidſt what Difficulties and Troubles they paſs their Time; and how they are ſhipwreck'd in Life, or wander about in it; or are conquered, and led along like Captives, ſome by INTEMPERANCE, and others by ARROGANCE; here by COVETOUSNESS, and there by VAIN-GLORY, or any other of the VICES: whoſe Chains they are in vain ſtriving to get looſe from, that they might eſcape, and get to this Place of Reſt: ſo that their whole Life ſeems to be nothing but one ineffectual Struggle. And all this they ſuffer from their miſtaking the right Way, and forgetting the Orders given them by the directing GENIUS.

S. That appears to me to be the Caſe; but I don't ſo clearly ſee, why the VIRTUES lead the Perſon that has been crown'd, back to the Place that he had left.

O. C. Becauſe, he had never formed a full and exact Idea of the Things that paſſed there; but at beſt, had only gueſſed and doubted about them; for from the Draught of Ignorance and Error that he had taken at his Entrance, he had imagined Things that were bad to be good, and Things that were good to be bad; by which means he had lived wretchedly, as indeed all do while they are there. But now that he has obtained the Knowledge of what is really good, he can both live happily himſelf, and can ſee how very unhappy the others are.

S. And when he has taken a full View there, what does he do, or whither does he go?

O. C. Wherever he pleaſes, for every where is he as ſafe as one that is got into the *Corycian* Cave; ſo that whereſoever he goes, he lives in full Security, and undiſturbed Happineſs; and is received by all others, with as much Pleaſure as a good Phyſician is by his Patients.

S. And

S. And has no longer any Dread of thoſe Females which you called Monſters? nor any Apprehenſion of being hurt by them?

O. C. Not in the leaſt; for he will never any more be moleſted either by ANGUISH, or SORROW, or INTEMPERANCE, or COVETOUSNESS, or POVERTY, or any other Evil; for he is now Maſter of them all, and ſuperior to every thing that formerly gave him any Trouble. As they who practiſe the catching of Vipers, are never hurt by the Bite of thoſe Creatures, which is ſo venomous, and even mortal to others, becauſe they have an Antidote againſt their Poiſon; ſo he is ſafe from any Influence of all theſe Evils, becauſe he has the Antidote againſt them.

S. That you have explained to me very well; but I beg you would tell me yet farther, who they are that are deſcending from the middle of the Rock, ſome of them crowned, and with an Air of Joy on their Countenances; and others without Crowns, that ſeem to have been rejected, and have the Marks of ſeveral Falls about them, and are followed by certain Women.

O. C. They, who are crowned, are ſuch as got ſafe to SCIENCE, and are delighted with the Reception that ſhe has given them; and thoſe without Crowns, who ſeem to have been rejected by her, and are returning in ſo bad a Condition, are ſuch as found their Hearts fail them, when they came to the Precipice where PATIENCE ſtands; and turned back from that Point, and are now wandering irregularly they know not whither.

S. And who are the Women that are following them?

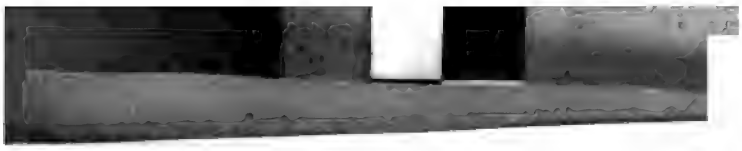
O. C. They are SORROW and ANGUISH, and DESPAIR and INFAMY, and IGNORANCE.

S. By your Account, they are attended by every thing that is bad!

O. C. Undoubtedly they are, but when they are got down into the firſt Incloſure, to VOLUPTUOUSNESS and INTEMPERANCE, they don't lay the Blame on themſelves, but immediately ſay all the ill Things they can of SCIENCE, and of thoſe who are going to her; and tell how miſerable and wretched thoſe poor People are, and how much they ſuffer, who leave the Life they might have enjoyed below, and the good Things beſtowed there.

S. And what are the good Things which they mean?

O. C. Luxury and Intemperance; to ſay all in two words; for to indulge their Paſſions like brute Beaſts, is what



what they look upon as the Completion of all their Happineſs.

S. And thoſe other Women that are coming down there, who look ſo gay and ſo well-pleaſed with themſelves, what are they?

O. C. The OPINIONS, who after conducting thoſe to SCIENCE, who have gained Admiſſion to the VIRTUES, are returning to bring up others, and to acquaint them how happy thoſe are, whom they have already conducted up thither.

S. And have they been admitted to the Virtues themſelves?

O. C. By no means; for 'tis not allowable for OPINION to enter, where KNOWLEDGE has her Dwelling. Their Buſineſs therefore was only to conduct them to SCIENCE; and when ſhe has receiv'd them, they turn back again to bring others; like Tranſport-Ships, which as ſoon as they have deliver'd one Freight, return for another.

S. You have now, I think, very well explain'd all the Figures in the Picture; but you have not yet told us what Directions they were, which the Genius at the firſt Portal gives to thoſe that are entering into Life.

O. C. He bids them be of good Courage. Wherefore be you alſo of good Courage; for I will tell you the whole, and leave no one Thing unexplain'd to you.

S. We ſhall be extremely obliged to you.

O. C. You ſee that blind Woman there, on the round Stone, who I told you before was FORTUNE.

S. I ſee her.

O. C. As to that Woman, he orders them not to place any Confidence in her, nor to look on any of her Gifts as firm, or ſecure; nor to conſider them as their Property; for there is no hindering her from reſuming them, and giving them to any body elſe; and 'tis what ſhe is extremely apt to do. He therefore orders them to regard all her Preſents with Indifference, and not to rejoice if ſhe makes them any, nor to be dejected if ſhe takes them away, and to think neither well nor ill of her; for whatever ſhe does is done without Thought, and all by mere Chance and Accident, as I have acquainted you already. 'Tis on this Account that the Genius commands them, not to attach themſelves to any thing ſhe can give; nor to be like thoſe ſimple Bankers, who when they have receiv'd any Sum of Money in Truſt, are apt to be pleaſed with it, and look upon it as their

their own; and when they are called upon to repay it, grow uneaſy, and think it very hard; not conſidering that it was depoſited in their Hands on that very Condition, that the true Owners might demand it again whenever they pleaſed. Juſt thus the GENIUS commands Men to look upon all the Gifts of FORTUNE: and to be aware, that ſhe may recall them whenever ſhe has a Fancy to do it; or may ſend in more, and if ſhe pleaſes, may reſume that and the former all together. He therefore commands thoſe who are entering into Life, to receive whatever ſhe offers them, and as ſoon as they have receiv'd it, to go on in queſt of a more laſting Acquiſition.

S. What Acquiſition do you mean?

O. C. That which they may obtain from SCIENCE if they can arrive ſafe to her.

S. And what is that ſhe gives them?

O. C. The true Knowledge of what is really good, and the firm, certain, and unchangeable Poſſeſſion of it. He therefore commands them to quit Fortune immediately, in Purſuit of this; and when they come to thoſe Women, who, as I told you before, were INTEMPERANCE and VOLUPTUOUSNESS, to leave them too directly, and not to mind whatever they can ſay; but to go on for the Incloſure of FALSE SCIENCE; there he bids them ſtay a little while, to get what may be uſeful to them on the reſt of their Road, and then to leave her directly too, and go on for TRUE SCIENCE. Theſe are the Orders which the GENIUS gives to all that enter into Life; and whoever tranſgreſſes or neglects them, will be a miſerable Wretch. I have now explain'd the whole of the Parable contain'd in this Painting; but if you have any particular Queſtion to aſk in relation to any thing that I have ſaid, I am very ready to anſwer it.

S. We are much obliged to you. Pray then, what is it that the GENIUS orders them to get in the Incloſure of Science, falſly ſo called?

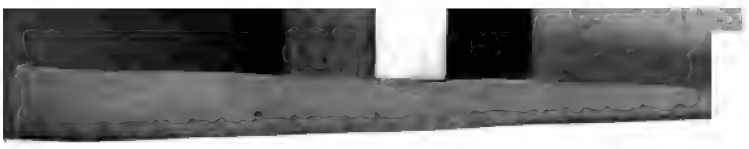
O. C. Whatever may be of uſe to them.

S. And what is there, that may be of uſe to them?

O. C. Literature, and ſo much of the Sciences, as *Plato* ſays, may ſerve People in the beginning of their Lives as a Bridle, to keep them from being drawn away by idler Purſuits.

S. And is it neceſſary for all who would arrive at True Science, to do this?

O. C.



O. C. No, it is not neceſſary, but it may be uſeful; tho' in truth, theſe things themſelves do not contribute towards making them the better Men.

S. Not contribute at all towards making them better!

O. C. Not at all, for they may be as good without them. And yet they are not wholly unuſeful; for they may ſometimes help us, as Interpreters do, to the Meaning of a Language we don't underſtand: But after all, 'tis better to underſtand the Language ourſelves, than to have any need of an Interpreter; and we may be good, without the Aſſiſtance of Learning.

S. In what then have the Learned any Advantage over others, towards becoming better Men?

O. C. Why do you imagine they ſhould have any Advantage; ſince you ſee they are deceiv'd like others, as to what is good or bad; and continue to be as much involved in all manner of Vices? For there is nothing that hinders a Man, who is a Maſter of Literature, and knowing in all the Sciences, from being at the ſame time a Drunkard, or Intemperate, or Covetous, or Unjuſt, or Villainous, or in one word, Imprudent in all his Ways.

S. 'Tis true, we ſee too many Inſtances of ſuch.

O. C. Of what Advantage then is their Learning, towards making them better Men?

S. You have made it appear, that it is of none; but pray what is the Reaſon of it?

O. C. The Reaſon is this: That when they are got into the ſecond Incloſure, they fix there as if they were arriv'd at True Science. And what can they get by that? ſince we ſee ſeveral Perſons, who go on directly from INTEMPERANCE, and the other VICES in the firſt Incloſure, to the Incloſure of TRUE SCIENCE; without ever calling in, where theſe learned Perſons have taken up their Abode. How then can the Learned be ſaid to have any Advantage over them? On the contrary, they are leſs apt to exert themſelves, or to be inſtructed, than the former.

S. How can that be?

O. C. Becauſe, they who are in the ſecond Incloſure, not to mention any other of their Faults, at leaſt profeſs to know, what they do not know: So that they acquieſce in their Ignorance, and have no Motive to ſtir them up towards the ſeeking of TRUE SCIENCE. Beſides, do you not obſerve another thing; that the OPINIONS, from the firſt Incloſure, enter in among them, and converſe with them, as freely as with the former? So that they are not

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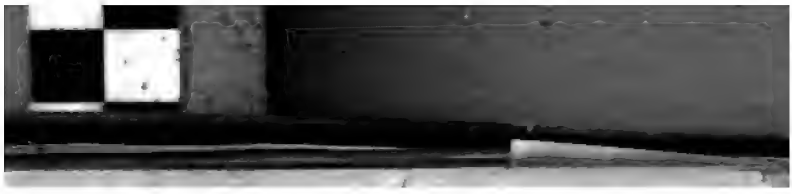
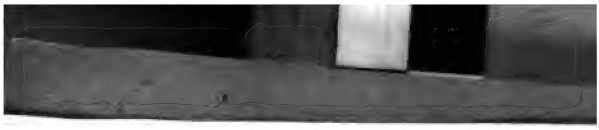
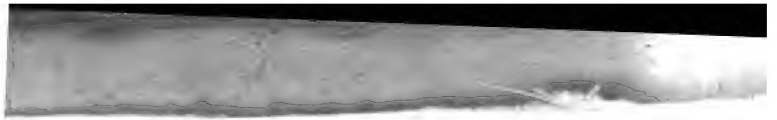
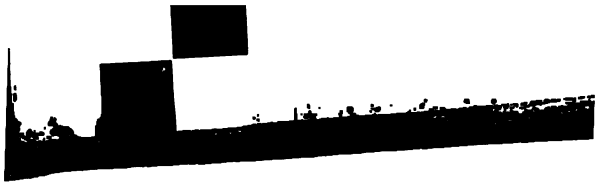
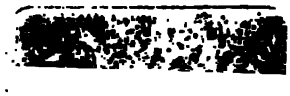


at all better even than they; unleſs REPENTANCE ſhould come to them, and ſhould convince them, that it is not SCIENCE they have been embracing all this while; but only the falſe Appearance of her, which has deceived them. But while they continue in the ſame Mind they are in, there is no Hope left for them. To cloſe all, my Friends, what I would entreat of you is, to think over every thing I have ſaid to you, to weigh it well in your Minds, and to practiſe accordingly. Get a Habit of doing right, whatever Pain it coſts you; let no Difficulties deter you, in the way to VIRTUE: and account every thing elſe deſpicable, in compariſon of this. Then will the Leſſon that I have taught you, prove to yourſelves a Leſſon of HAPPINESS.

F I N I S.